
FRAUNHOFER INSTITUTE FOR SOLAR ENERGY SYSTEMS ISE

Electricity production from solar and wind in Germany in 2012



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Facts to the electricity production from Solar and Wind 2012

- Due to the strong growth of the renewables in 2012, an export surplus of 22 TWh was achieved.
- Wind turbines produced 45.9 TWh in 2012 (48.9 TWh in 2011).
 - Their production decreased by 6% compared to 2011.
 - Wind energy produced 8.2% of the gross electricity generation.
- Photovoltaic (PV) plants produced 27.9 TWh in 2012 (19.3 TWh in 2011).
 - The production increased by 44% compared to 2011.
 - Solar energy produced 5.0% of the gross electricity generation.
- Hydro power produced 18.1 TWh in 2012. The share of the gross electricity generation was 3.0%.

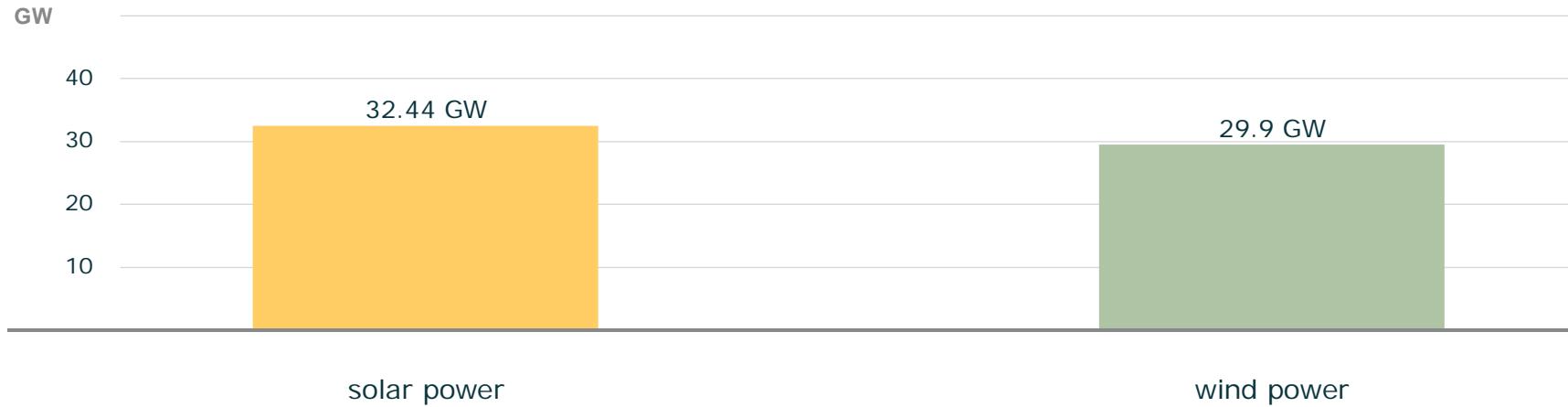
Data source: BMWi Energiedaten, Date: 15.01.2012

AGENDA

- Annual energies
- Monthly energies
- Weekly energies
- Daily energies
- Annual power curves
- Monthly power curves
- Weekly power curves
- Exemplary daily power curves

Installed power solar and wind at end of December 2012

Installed solar and wind power



- Since August 2012 the installed solar power is greater than the installed wind power

Graph: B. Burger, Fraunhofer ISE; data: Bundesnetzagentur

Installed solar and wind power 2011 and 2012

Installed solar and wind power

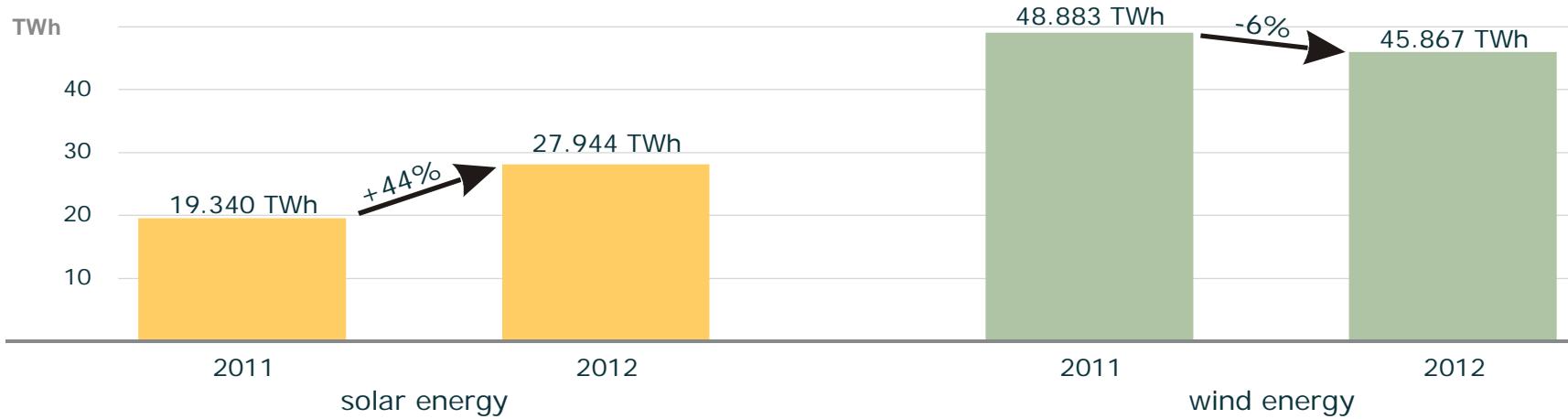


- Installed power at the end of the year

Graph: B. Burger, Fraunhofer ISE; data: Bundesnetzagentur

Production solar and wind in 2012

Annual production solar und wind

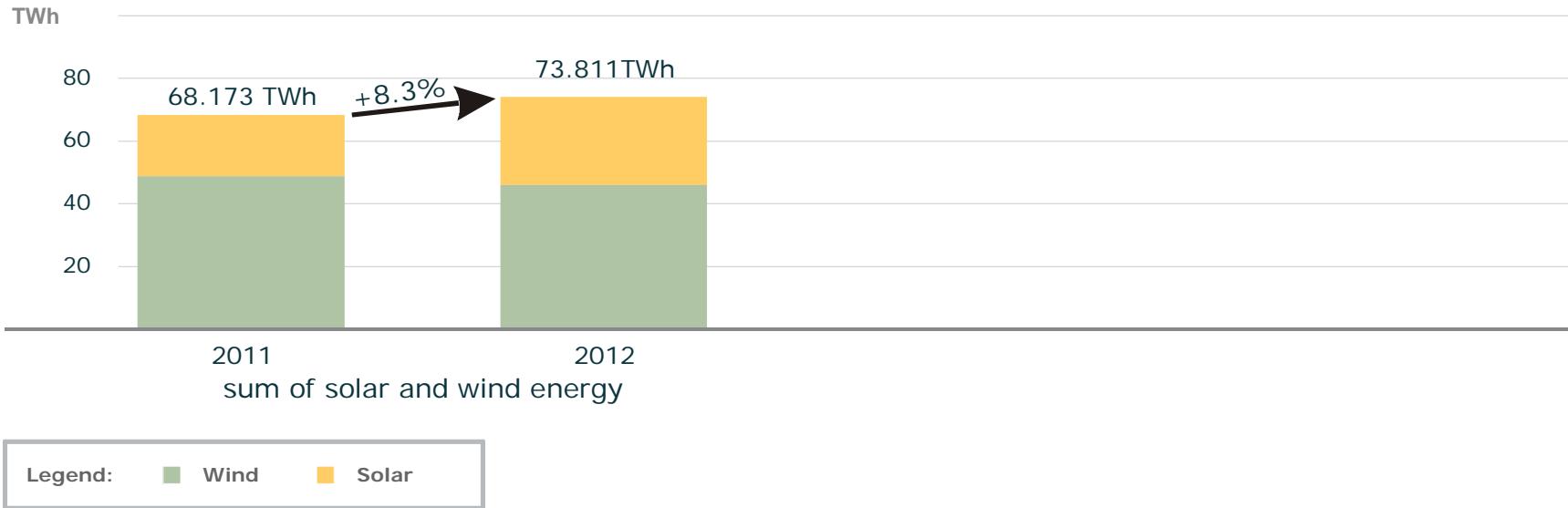


- Solar power plants produced 27.9 TWh in 2012. They reached a share of 5% of the gross electricity production of 560 TWh.
- Wind turbines produced 45.9 TWh in 2012. They reached a share of 8.2% of the gross electricity production.

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Production solar and wind in 2012

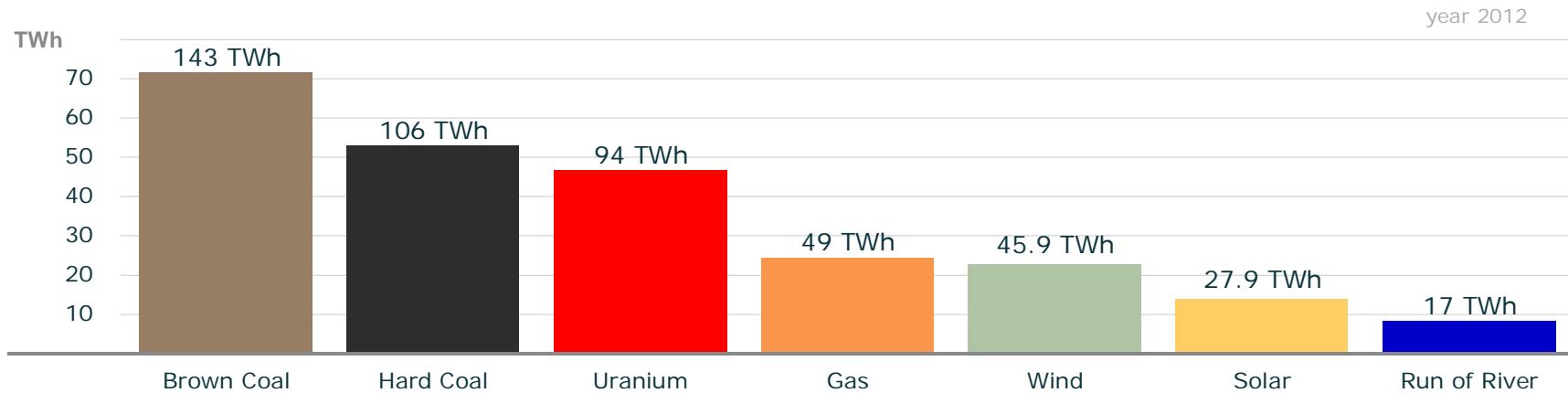
Annual sum of solar und wind production



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Shares in net electricity production in 2012

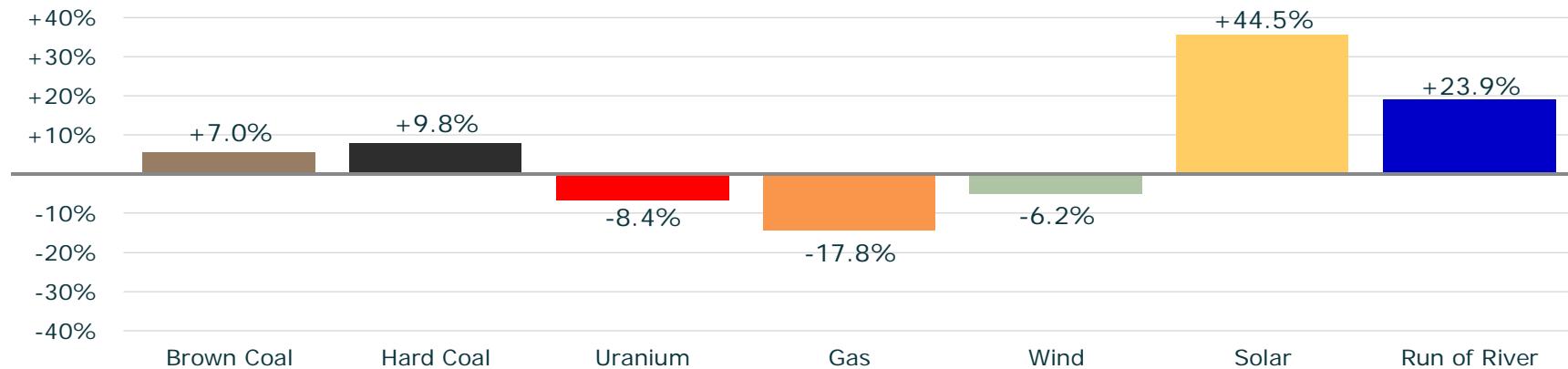
Net electricity production in 2012



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform, Statistisches Bundesamt (Destatis)

Changes in net electricity production, 2012 versus 2011

Change in electricity production: 2012 versus 2011

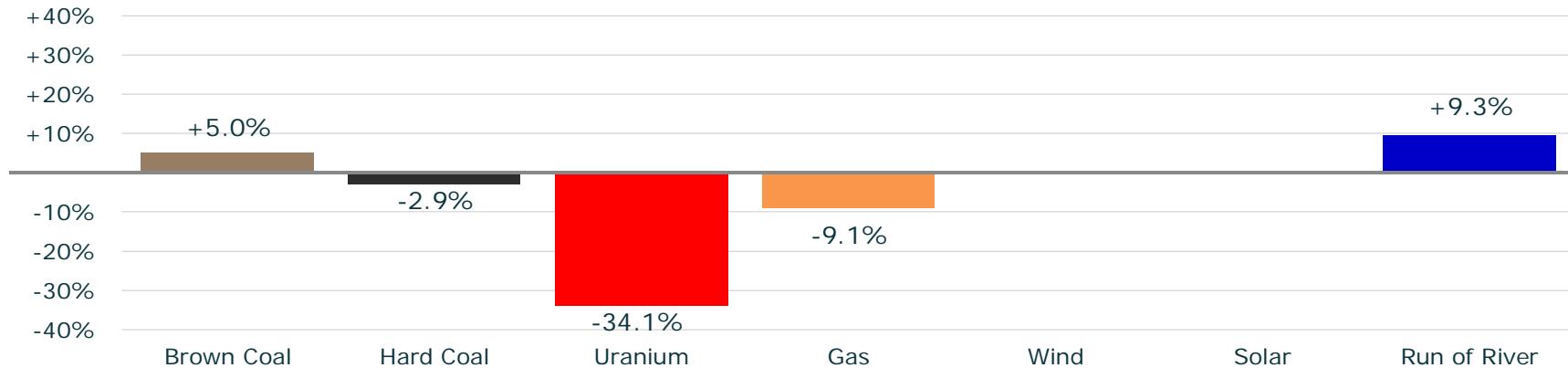


- Less uranium due to switch-off of 8 nuclear power plants in March 2011.
- Less gas due to peak load production of PV.
- More solar due to increased installed capacity.
- More run of river and less wind due to different weather conditions.

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform, Statistisches Bundesamt (Destatis)

Change in first half-year net electricity production, 2012 versus average of 2002 to 2011

Change in electricity production: 2012 versus ten years average



- Brown coal and hard coal almost constant, less gas due to high gas prices.
- Significantly less uranium due to switch-off of 8 nuclear power plants.
- Energetic compensation of uranium through renewable energies.
- More run of river due to different weather conditions.

Graph: B. Burger, Fraunhofer ISE; data: Statistisches Bundesamt; EEX Transparency Platform

Export and Import Balance since 2001

Electricity Export and Import



- The export surplus in 2012 will be approx. 22 TWh.
- The maximum export surplus was 22.5 TWh in 2008.

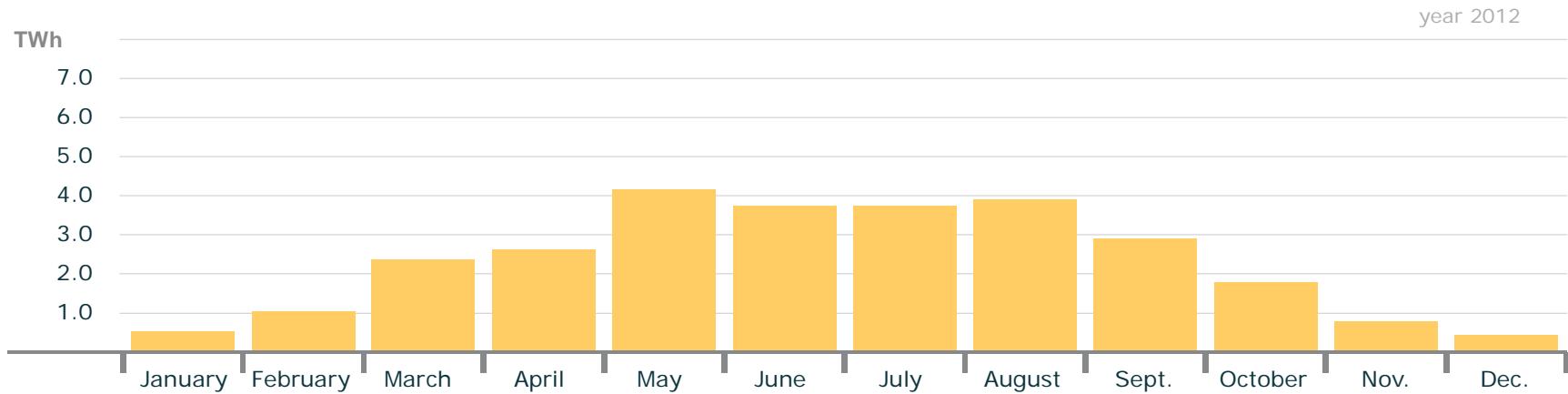
Graph: B. Burger, Fraunhofer ISE; data: Statistisches Bundesamt (DESTATIS); Entso-e

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- Monthly power curves
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Monthly Production Solar

Monthly Production Solar

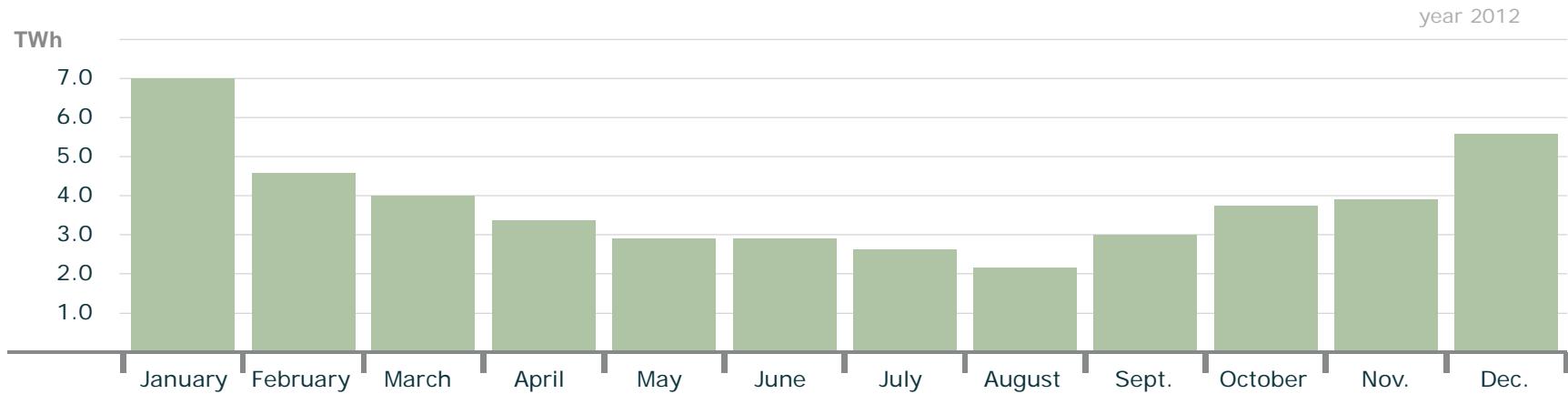


- The maximal production of PV was reached in May 2012 with 4.1 TWh
- The minimal production was 0.44 TWh in December 2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Monthly Production Wind

Monthly Production Wind

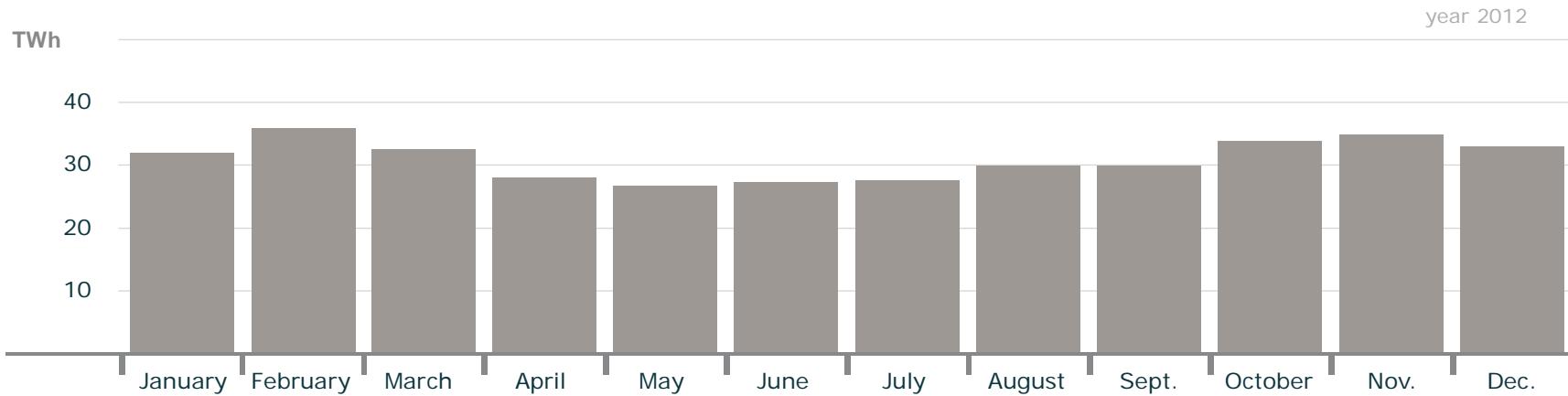


- The maximal production from wind was reached in January 2012 with 7 TWh
- The minimal production was 2.2 TWh in August 2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Monthly Production Conventional > 100 MW

Monthly Production Conventional > 100 MW

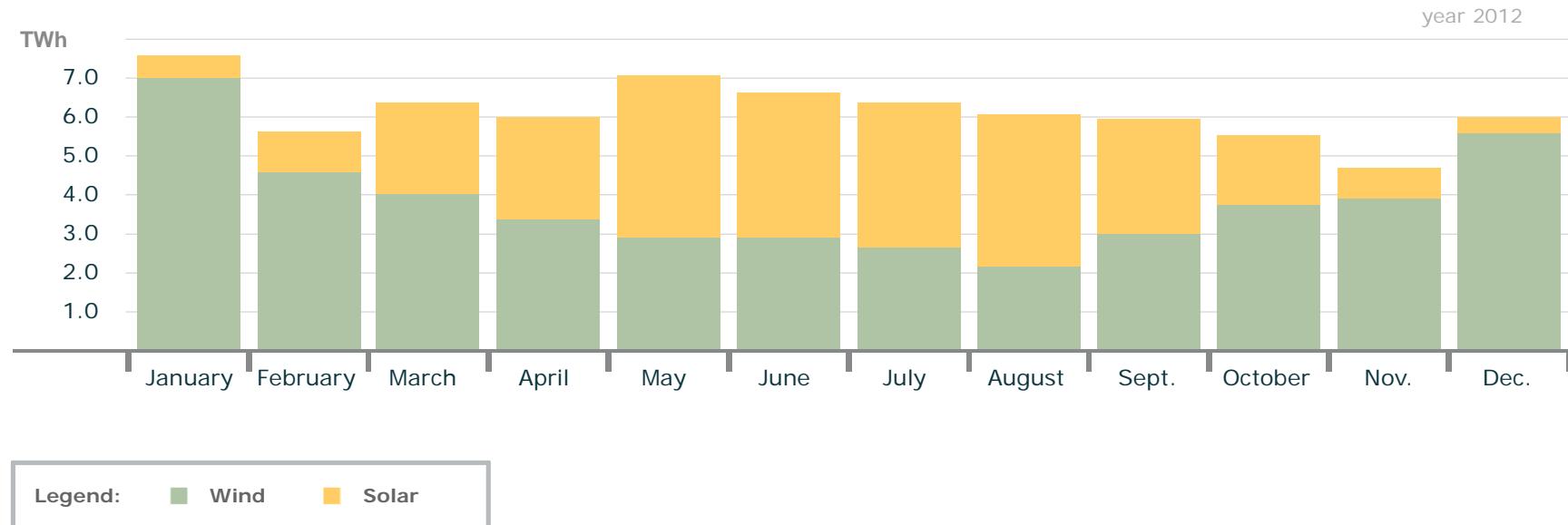


- The maximal production of conventional sources was 35.9 TWh in February 2012
- The minimal production of conventional sources was 26.6 TWh in May 2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Monthly Production Solar and Wind

Monthly Production Solar and Wind

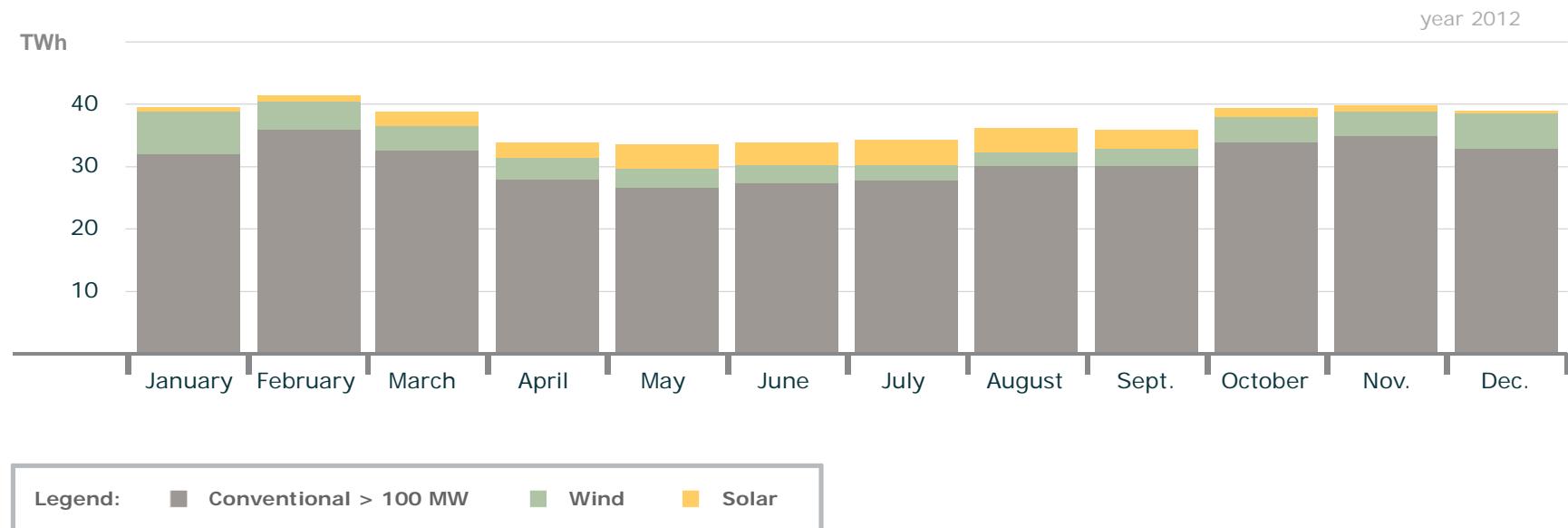


- The maximal sum of solar and wind production was 7.6 TWh in January 2012
- The minimal sum was 4.7 TWh in November 2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Monthly Production Solar, Wind and Conventional

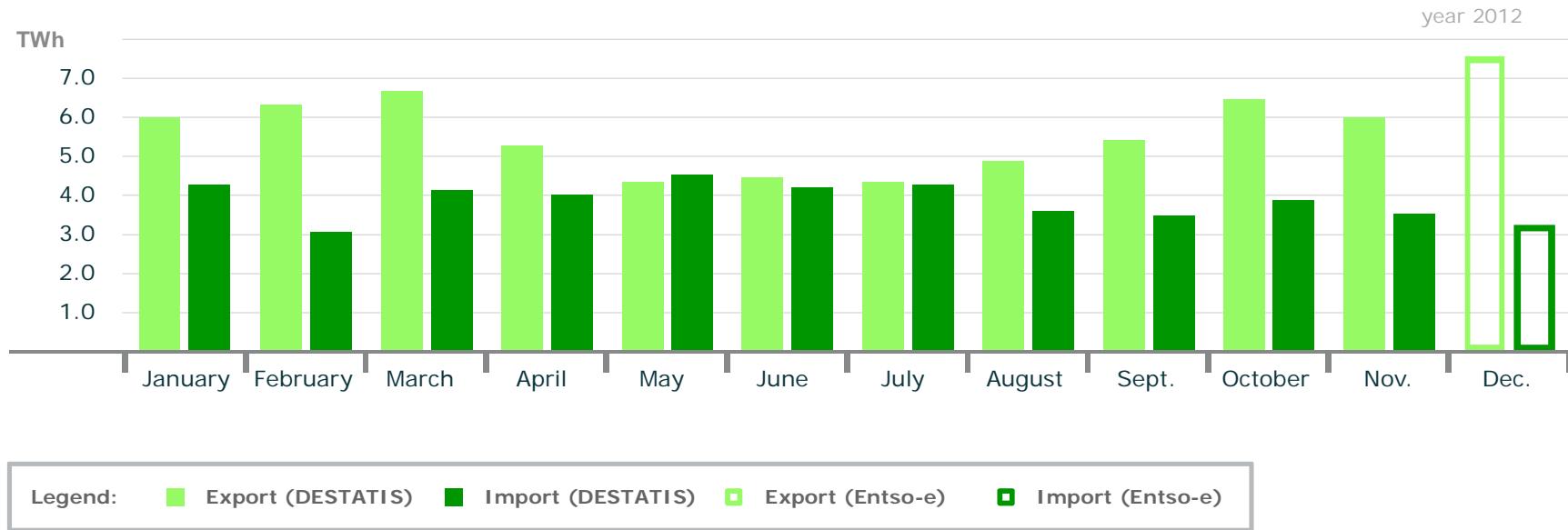
Monthly Production Solar, Wind and Conventional



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Export and Import

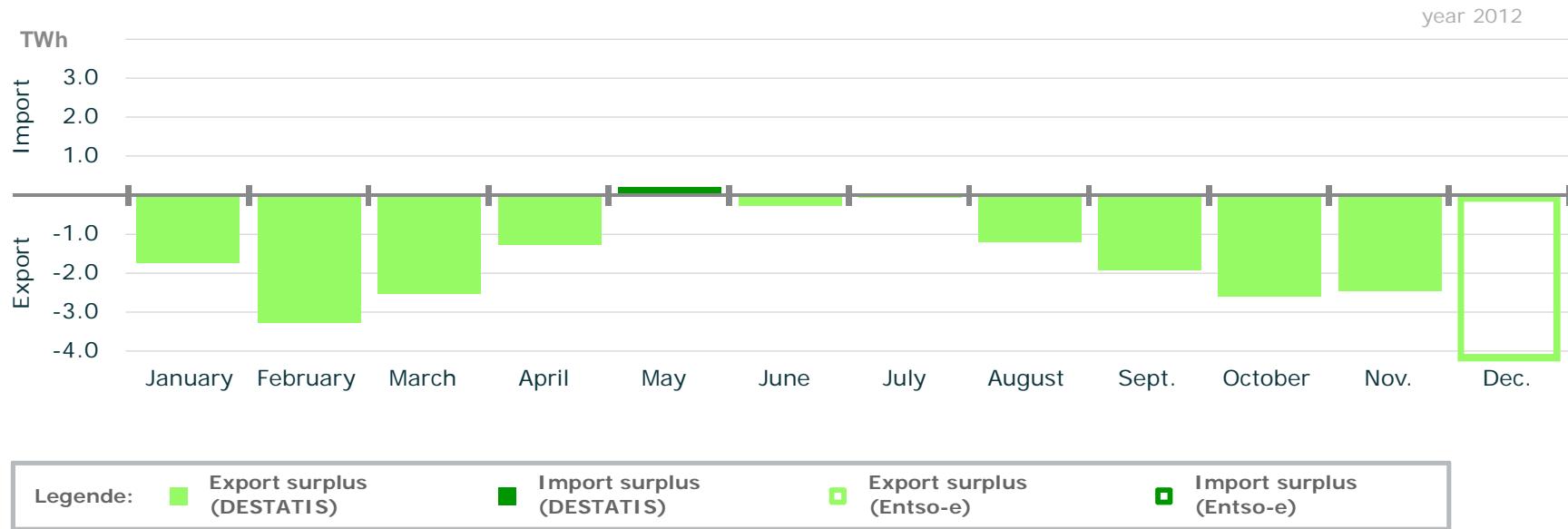
Electricity Export and Import



Graph: B. Burger, Fraunhofer ISE; data: Statistisches Bundesamt (DESTATIS); Entso-e

Export and Import Balance

Electricity Export and Import Balance



- The export surplus of the first eleven months of 2012 was 17.2 TWh. (DESTATIS)
- Calculated export surplus: December 4.2 TWh (Entso-e, scaled)

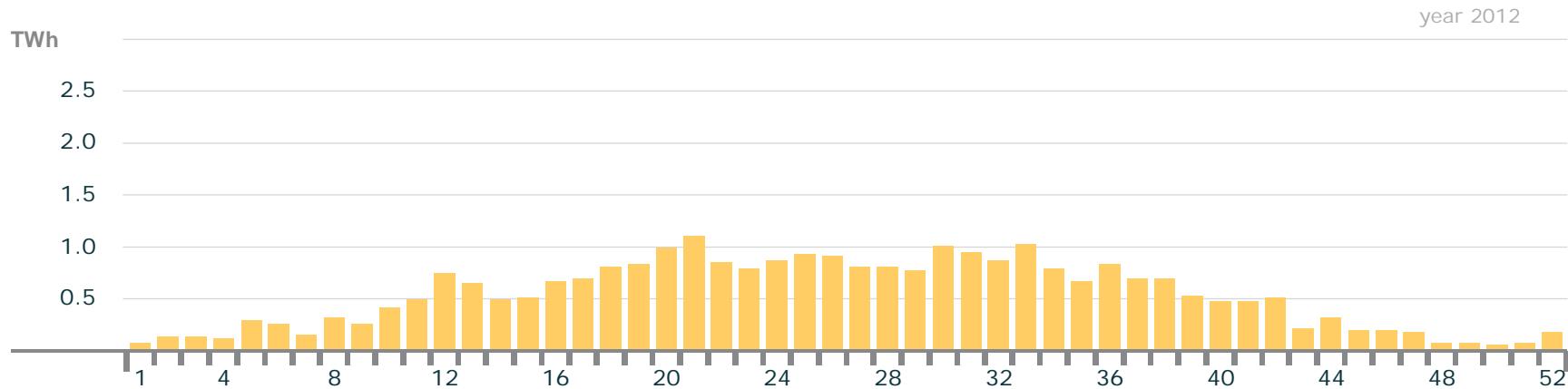
Graph: B. Burger, Fraunhofer ISE; data: Statistisches Bundesamt (DESTATIS); Entso-e

AGENDA

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- Monthly energies
- **Weekly energies**
- Daily energies
- Annual power curves
- Monthly power curves
- Weekly power curves
- Exemplary daily power curves

Weekly Production Solar

Weekly Production Solar

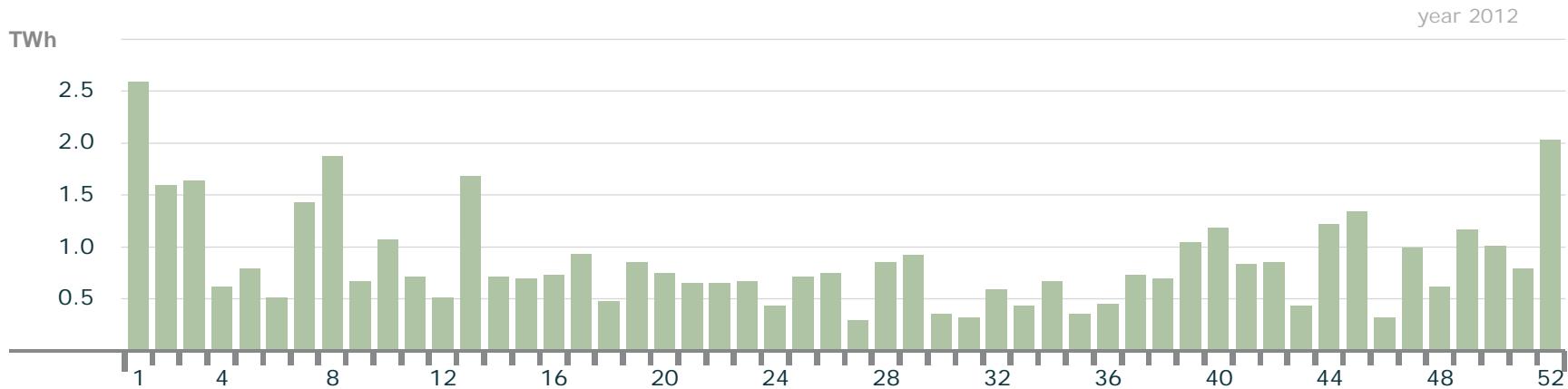


- The maximal weekly solar electricity production was 1.1 TWh in calendar week 21 from 21st to 27th of May 2012
- The minimal weekly production was 0.06 TWh in calendar week 50 from 10th to 16th of December 2012

Graph: B. Burger, Fraunhofer ISE; solar data: EEX Transparency Platform

Weekly Production Wind

Weekly Production Wind

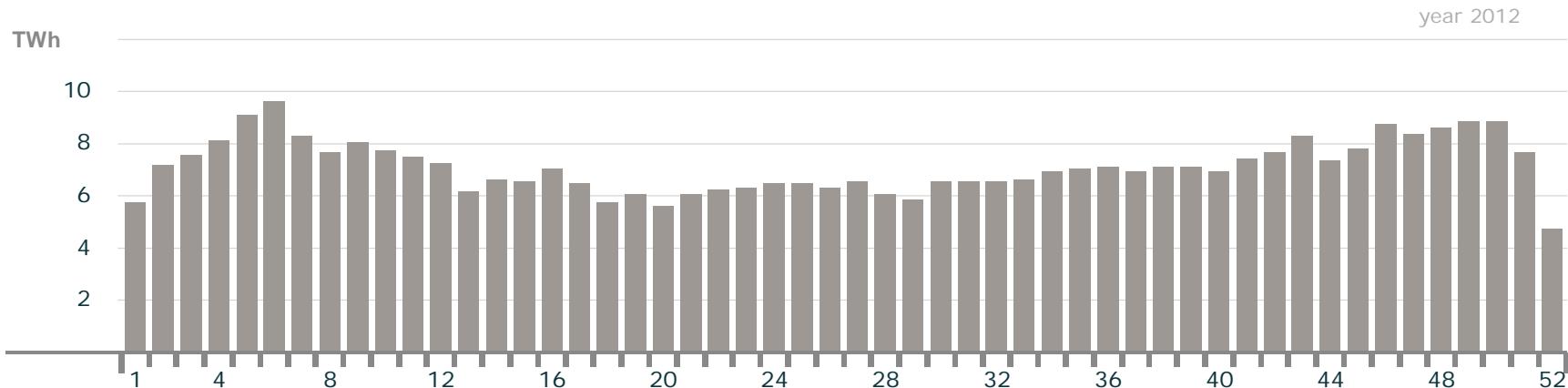


- The maximal weekly wind electricity production was 2.6 TWh in calendar week 1 from 2nd to 8th of January 2012
- The minimal weekly production was 0.29 TWh in calendar week 27 from 2nd to 8th of July 2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Weekly Production Conventional > 100 MW

Weekly Production Conventional > 100 MW

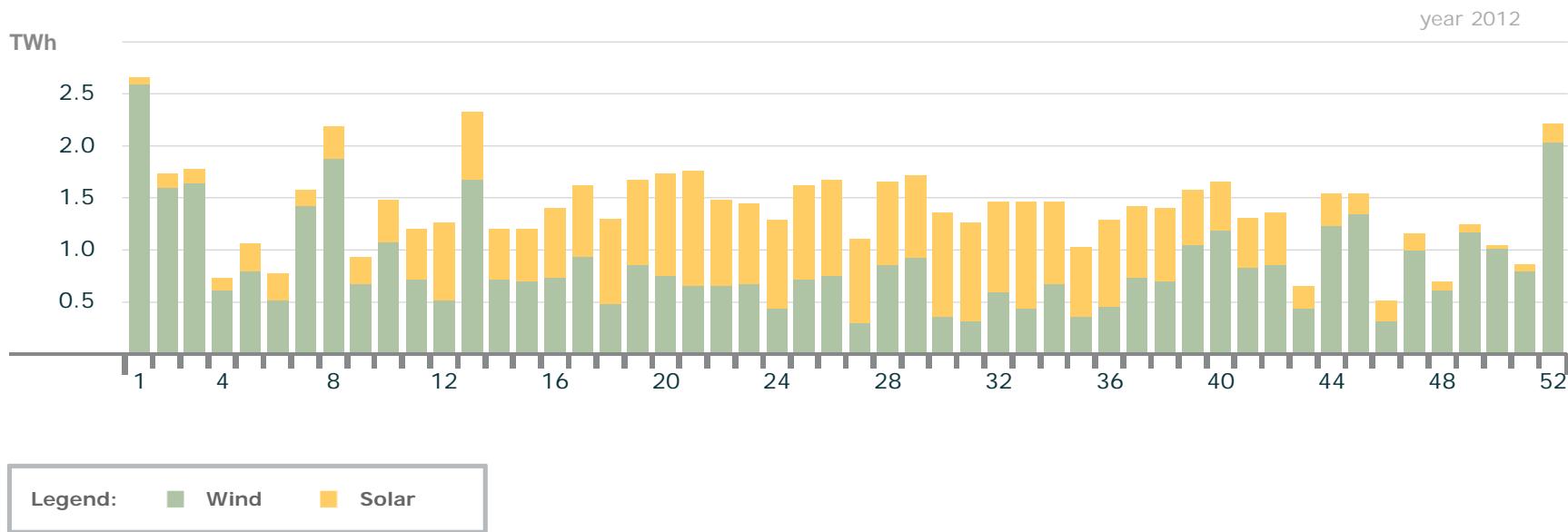


- The maximal weekly electricity production from conventional sources was 9.6 TWh in calendar week 6 from 6th to 12th of February 2012
- The minimal weekly production was 4.8 TWh in calendar week 52 from 24th to 30th of December 2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Weekly Production Solar and Wind

Weekly Production Solar and Wind

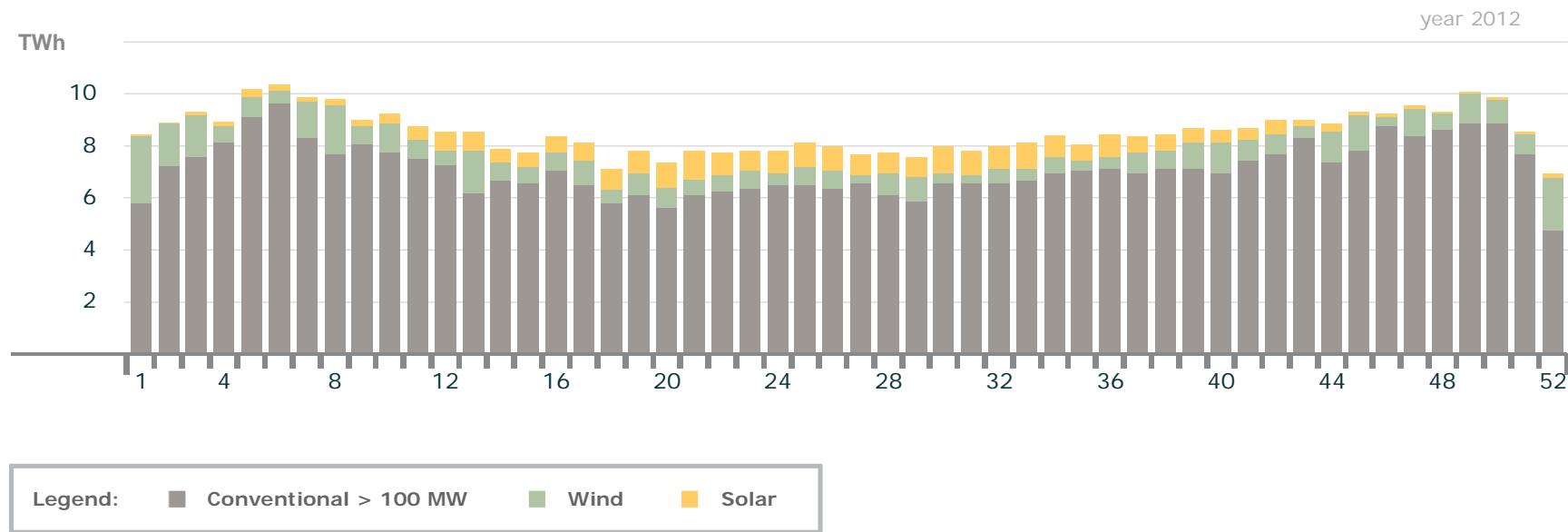


- The maximal weekly sum of solar and wind production was 2.7 TWh in calendar week 1 from 2nd to 8th of January 2012
- The minimal weekly sum was 0.65 TWh in calendar week 43

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Weekly Production Solar, Wind and Conventional

Weekly Production Solar, Wind and Conventional > 100 MW



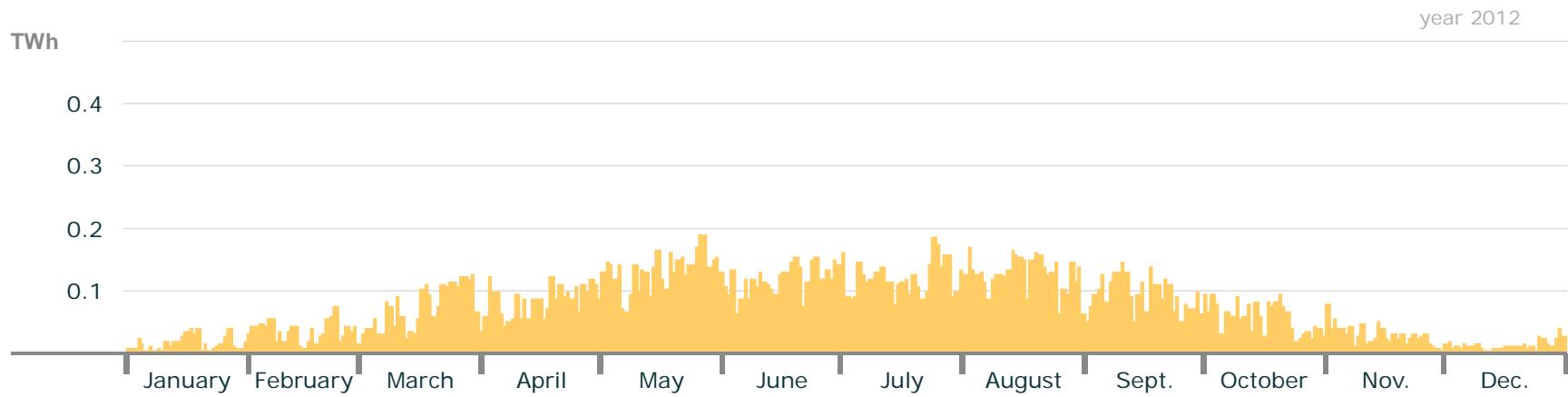
Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

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Daily production Solar

Daily production Solar

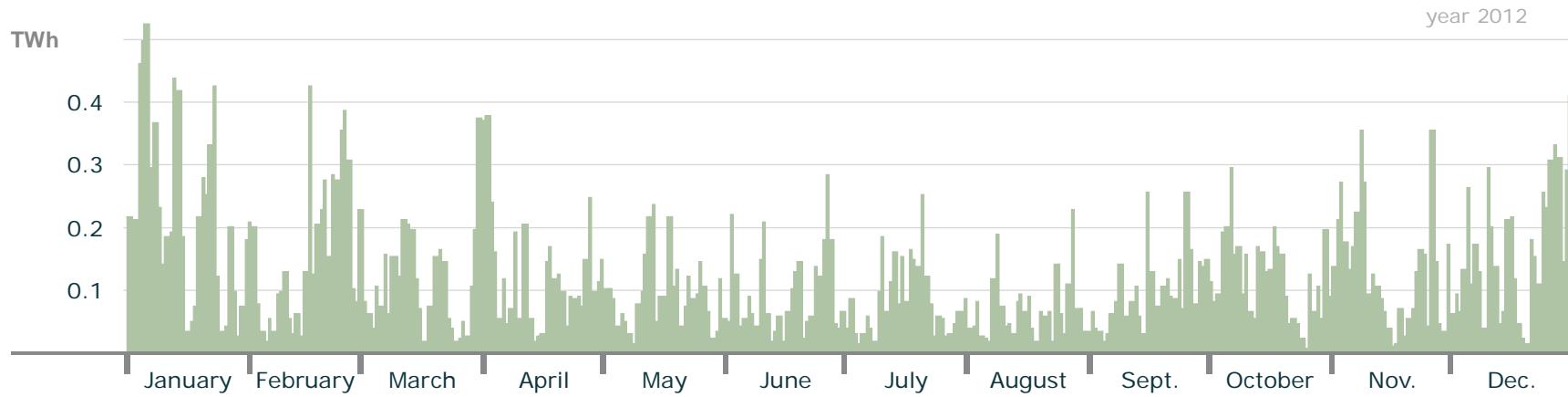


- The maximal daily production was 0.19 TWh at Friday, 25.05.2012
- The minimal daily production was 0.003 TWh at Saturday, 21.01.2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Daily production Wind

Daily production Wind

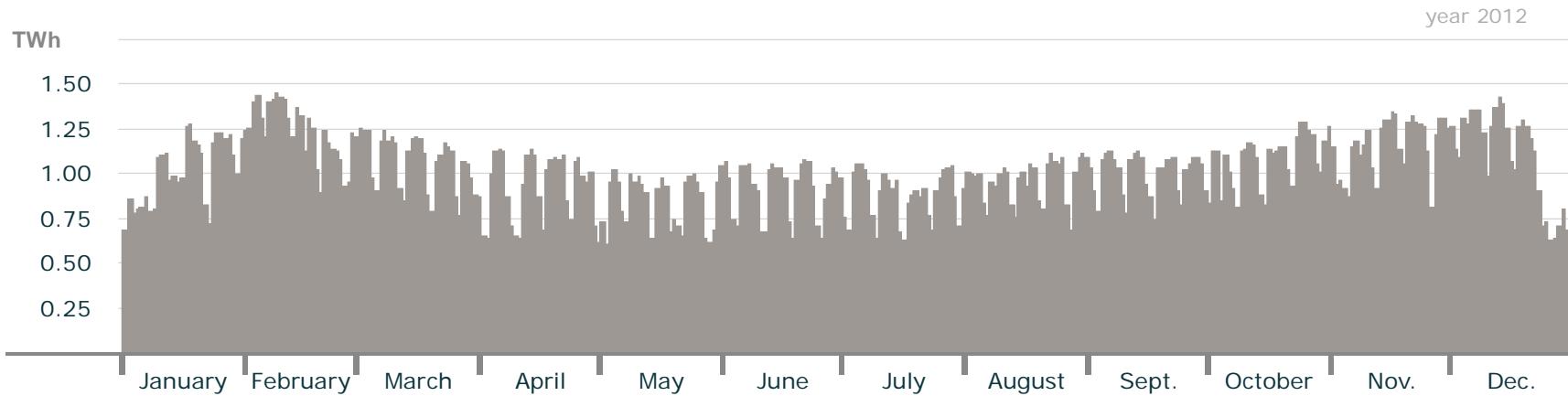


- The maximal daily production was 0.53 TWh at Thursday, 05.01.2012
- The minimal daily production was 0.007 TWh at Wednesday, 24.10.2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Daily production Conventional > 100 MW

Daily production Conventional > 100 MW

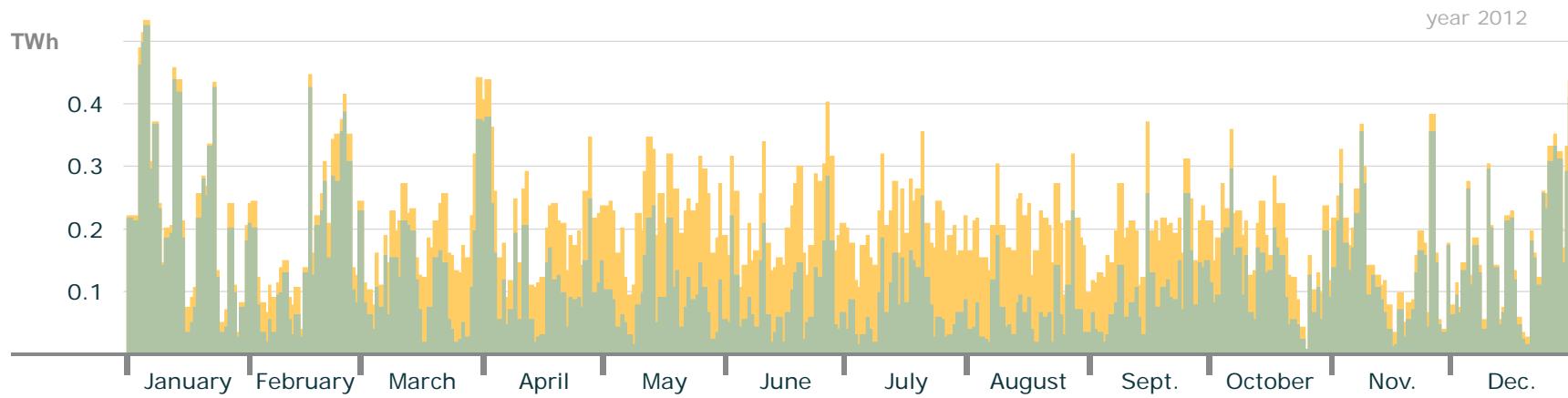


- The maximal daily production from conventional sources greater 100 MW was 1.45 TWh at Wednesday, 08.02.2012
- The minimal daily production from conventional sources greater 100 MW was 0.58 TWh at Sunday, 30.12.2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Daily production Solar and Wind

Daily production Solar and Wind

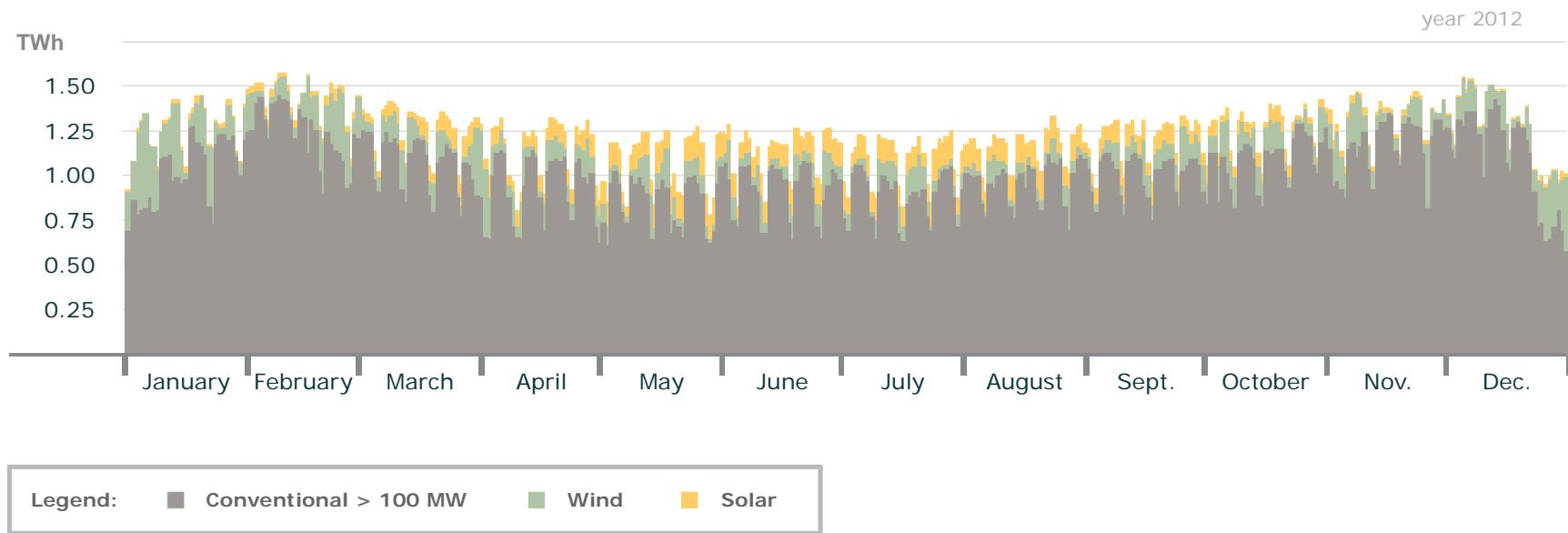


- The maximal daily sum of Solar and Wind production was 0.53 TWh at Thursday, 05.01.2012
- The minimal daily sum of Solar and Wind production was 0.03 TWh at Wednesday, 19.12.2012

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Daily production Solar, Wind and Conventional

Daily production Solar, Wind and Conventional > 100 MW



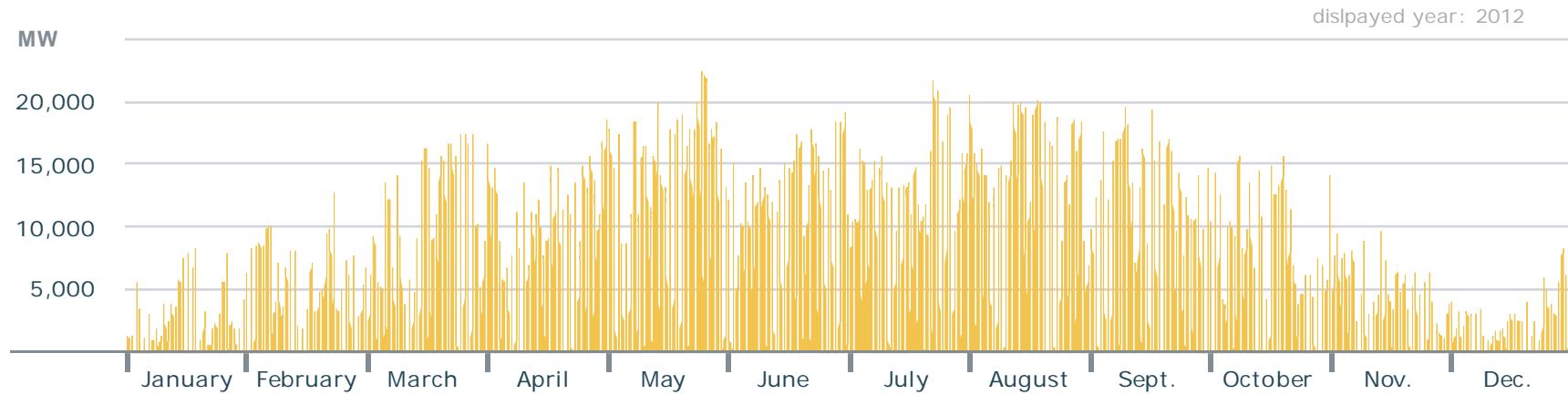
Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

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Electricity Production: Solar

Actual production solar

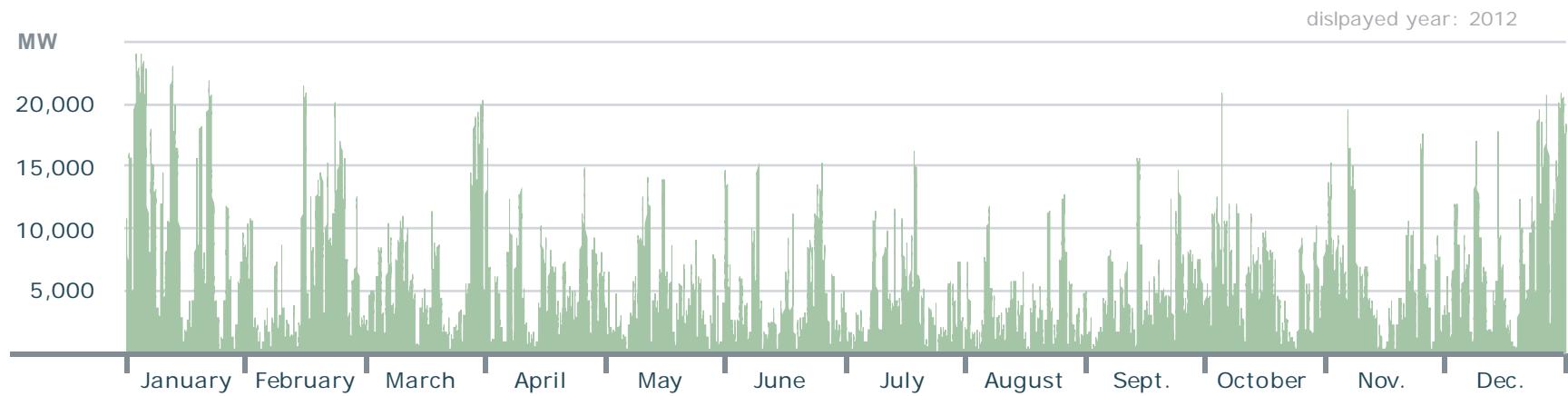


- The maximal solar power was 22.4 GW at 25th of May 2012, 12:45 (GMT +2:00)

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production: Wind

Actual production wind

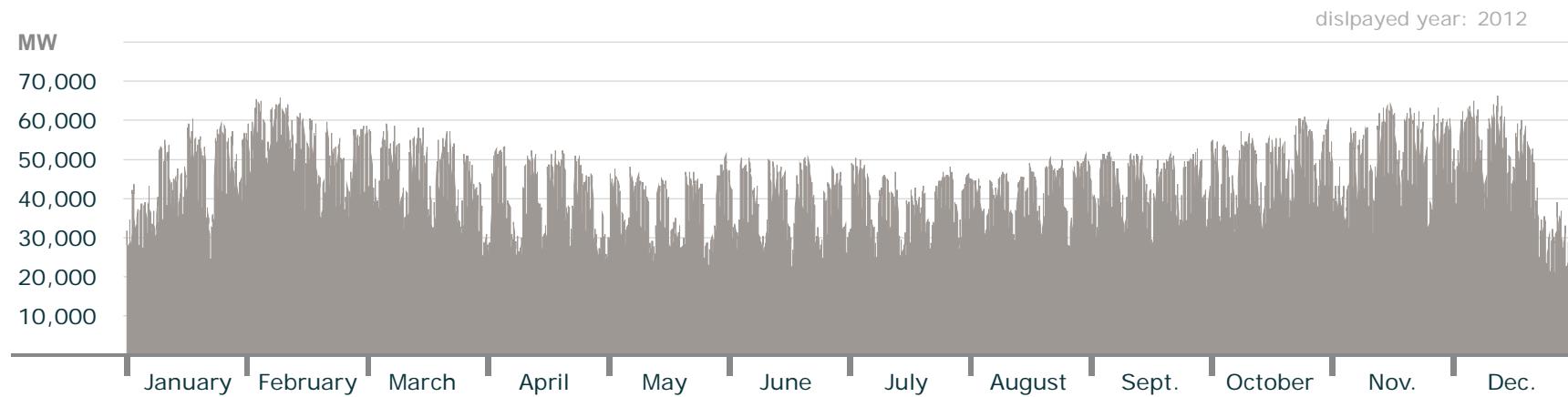


- The maximal wind power was 24.1 GW at 03rd of January 2012, 17:45 (GMT +1:00)
- The minimal wind power was 0.115 GW am 25th of July, 10:00 (GMT +2:00)

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production: Conventional sources > 100 MW

Actual production of conventional sources > 100 MW

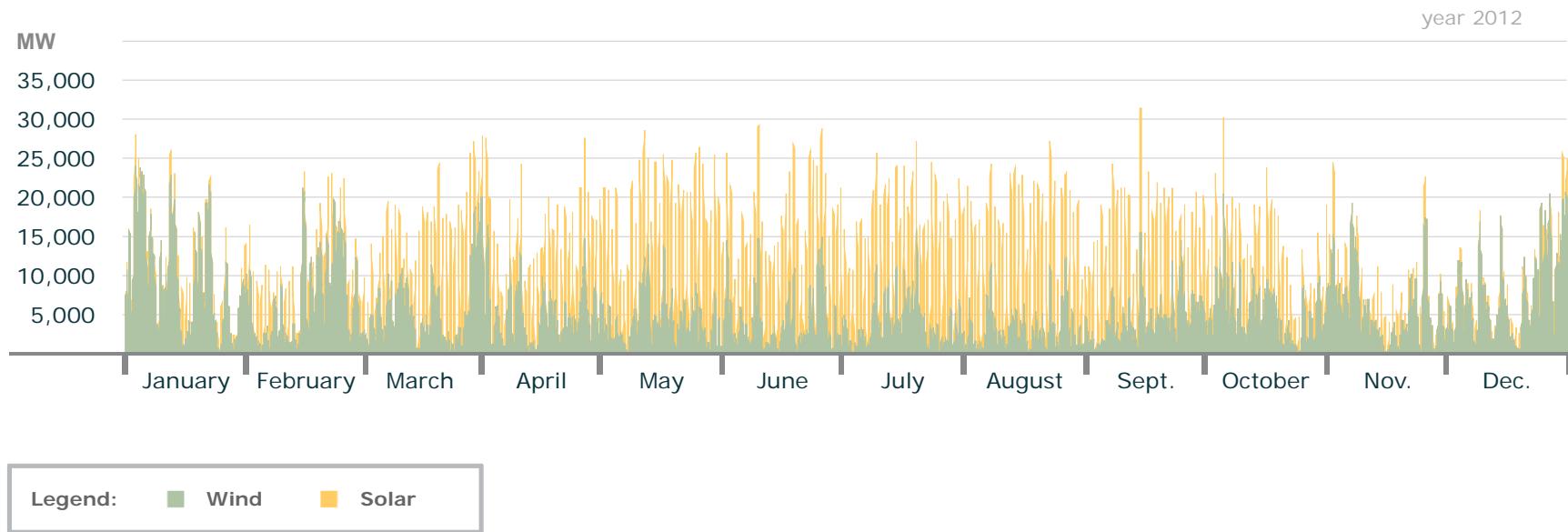


- The maximal power of conventional sources greater 100 MW was 66.5 GW at 12th of December 2012, 17:00 (GMT +1:00)
- The minimal power was 20.5 GW at 27th of December 2012, 04:00 (GMT +1:00)

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production from Solar and Wind

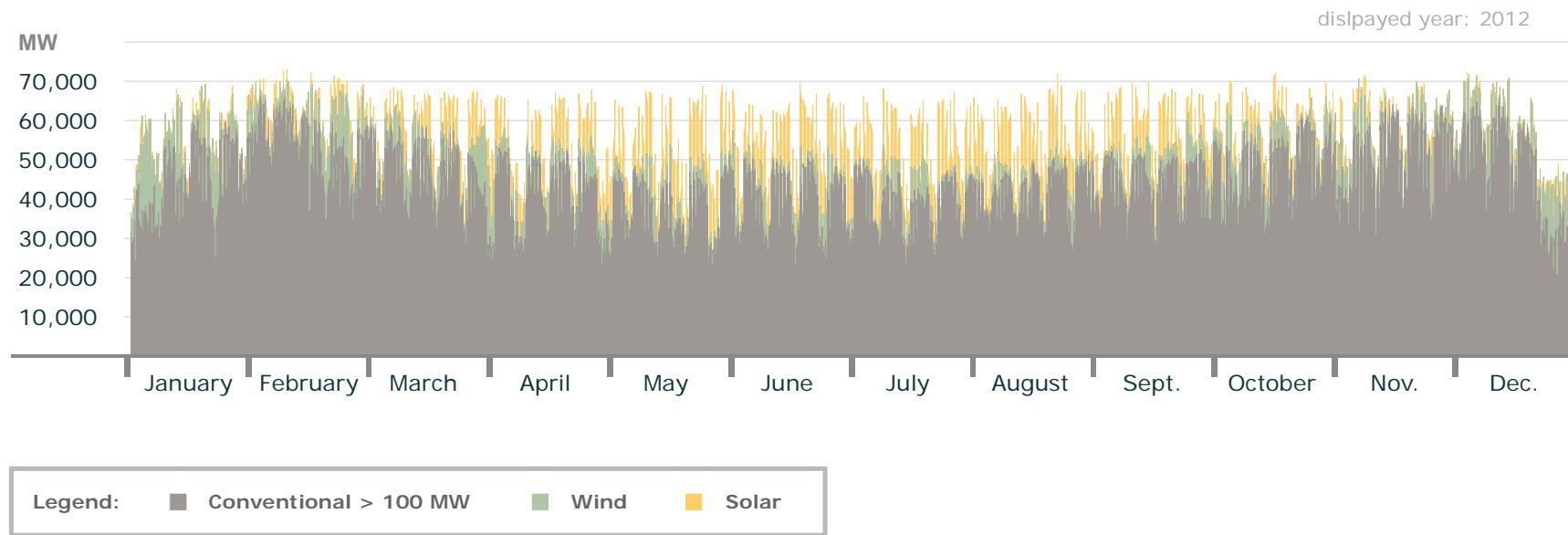
Actual production solar and wind



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production from Conventional, Solar and Wind

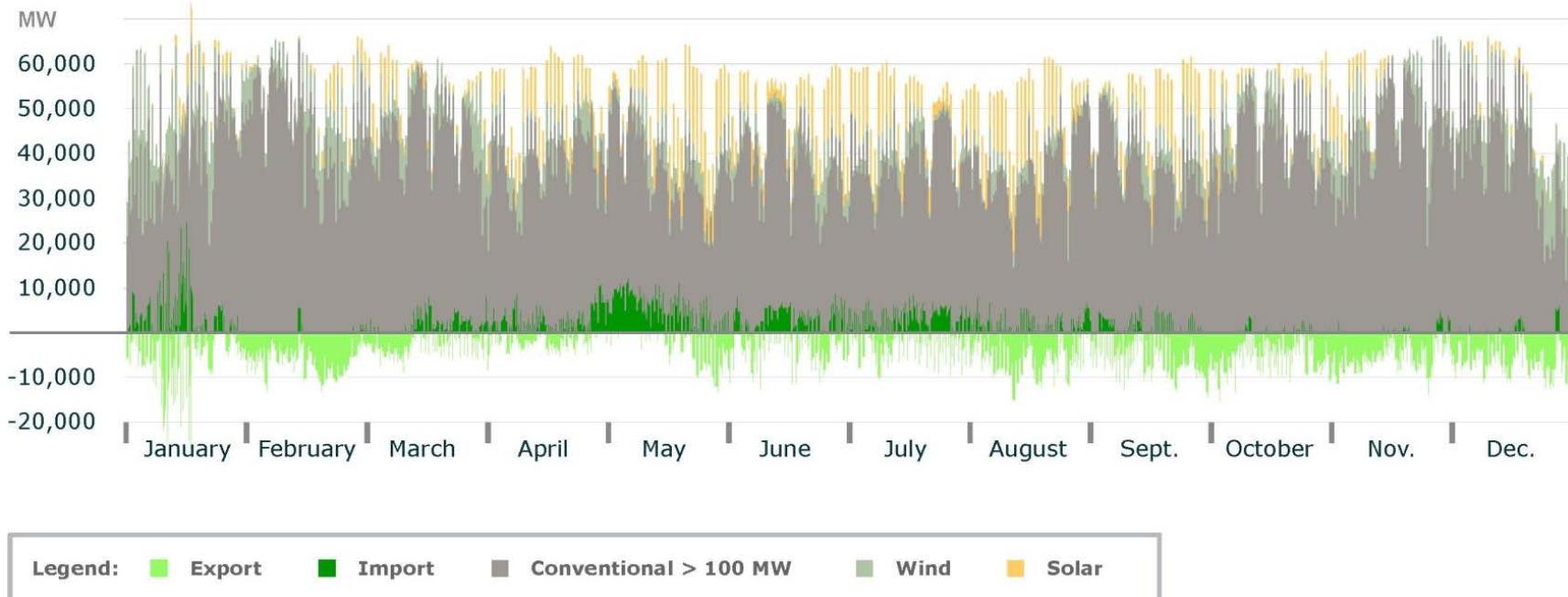
Actual production from conventional sources, wind and solar



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production from Conventional, Solar and Wind

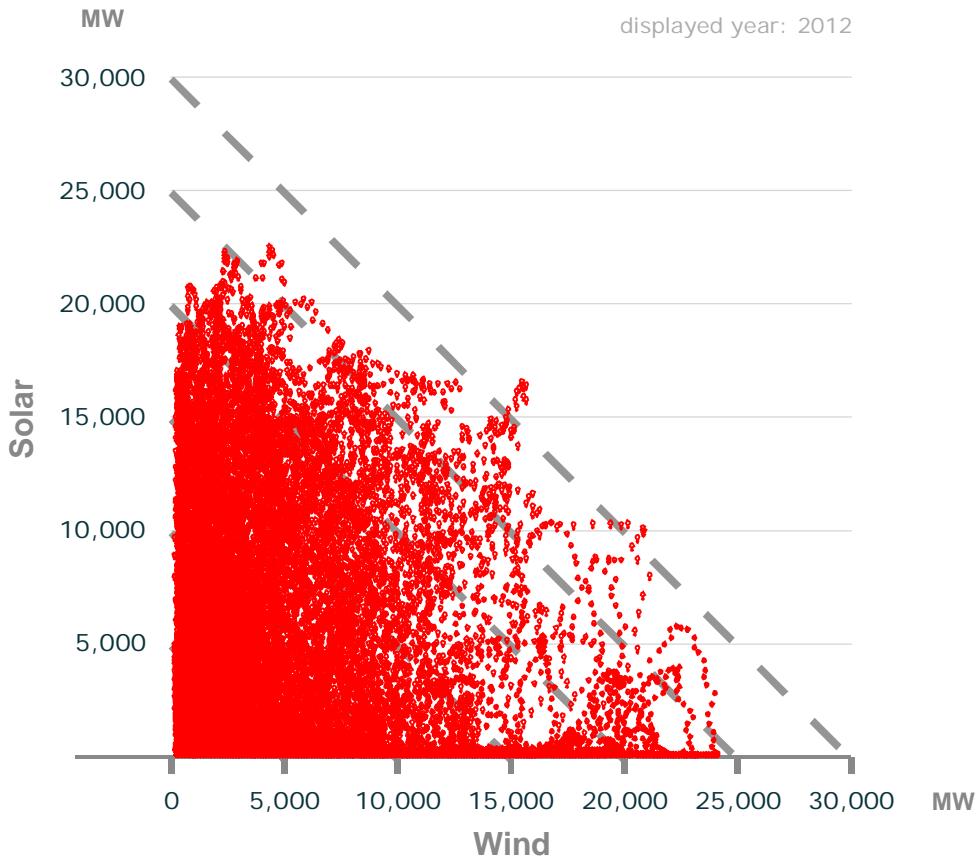
Actual production from conventional sources, wind and solar with import and export



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Power Solar versus Wind

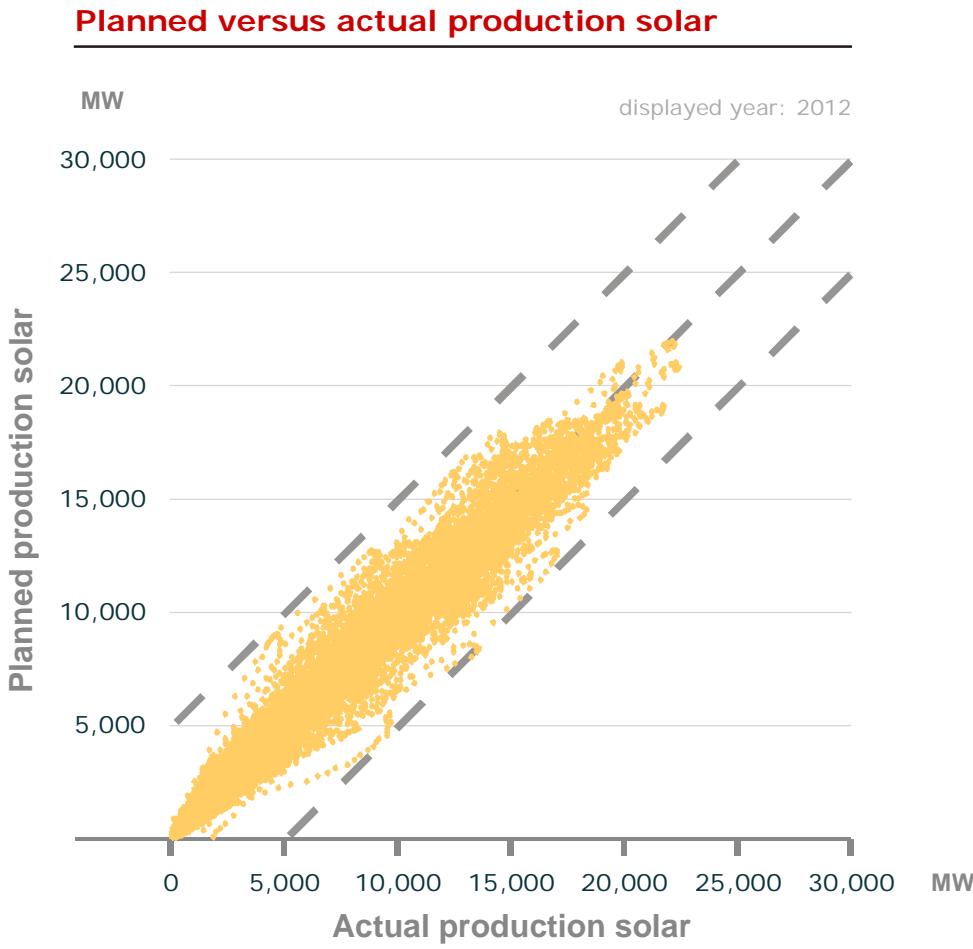
Solar versus Wind Power



- The sum of Solar and Wind power is up to now always smaller than the installed power of the single sources
- Solar and Wind complement one another quite good

Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

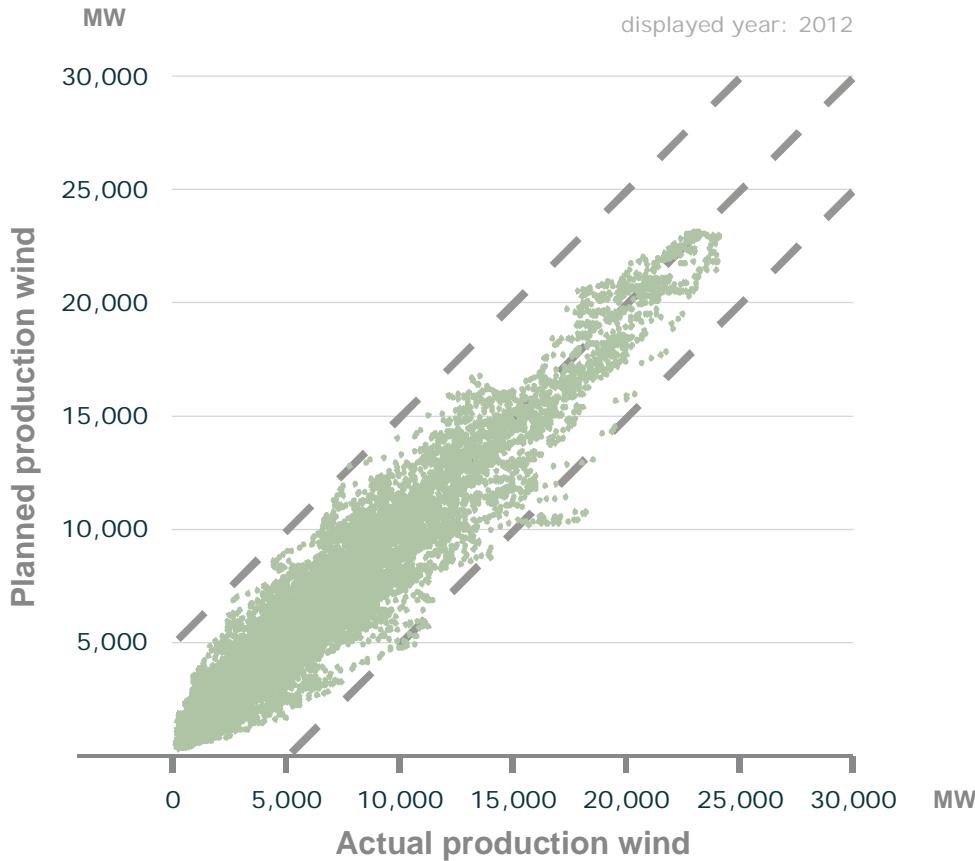
Planned versus actual production Solar



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

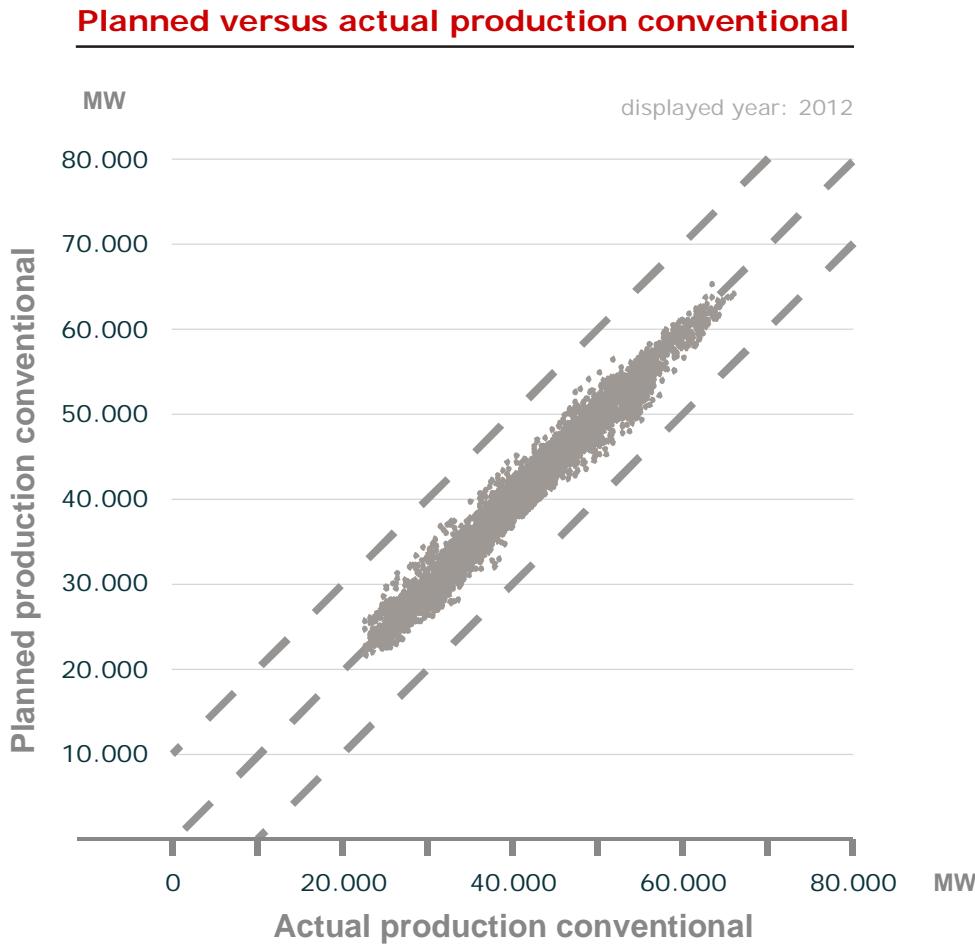
Planned versus actual production Wind

Planned versus actual production wind



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

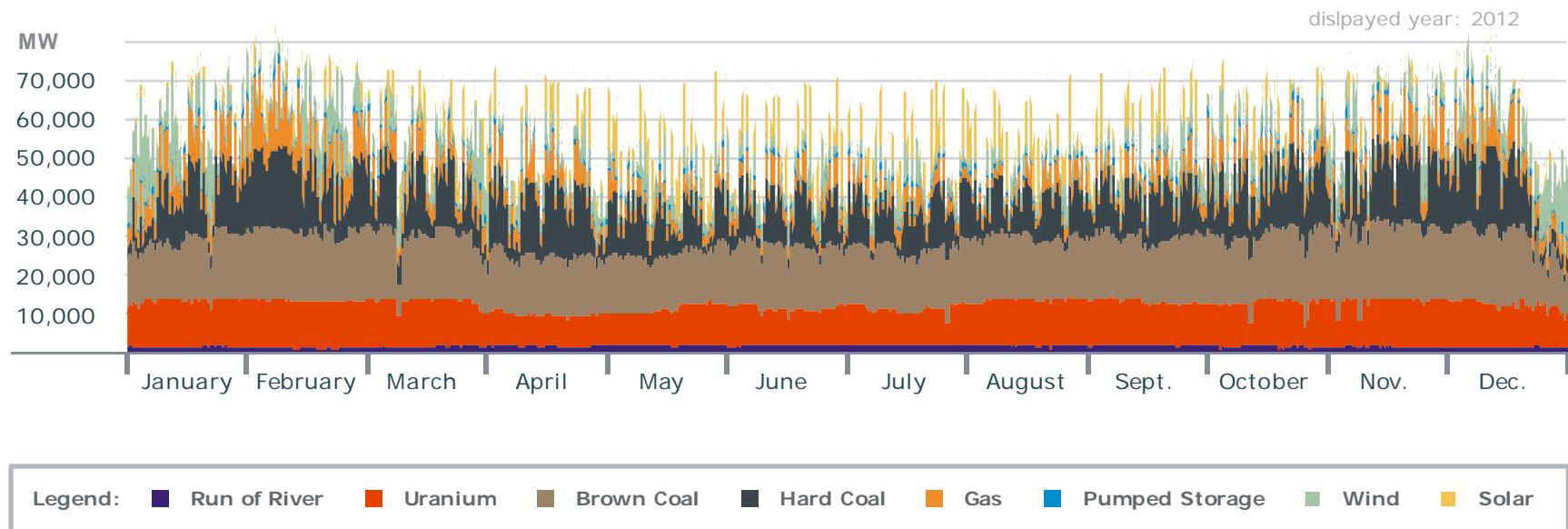
Planned versus actual production Conventional



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production of all Sources

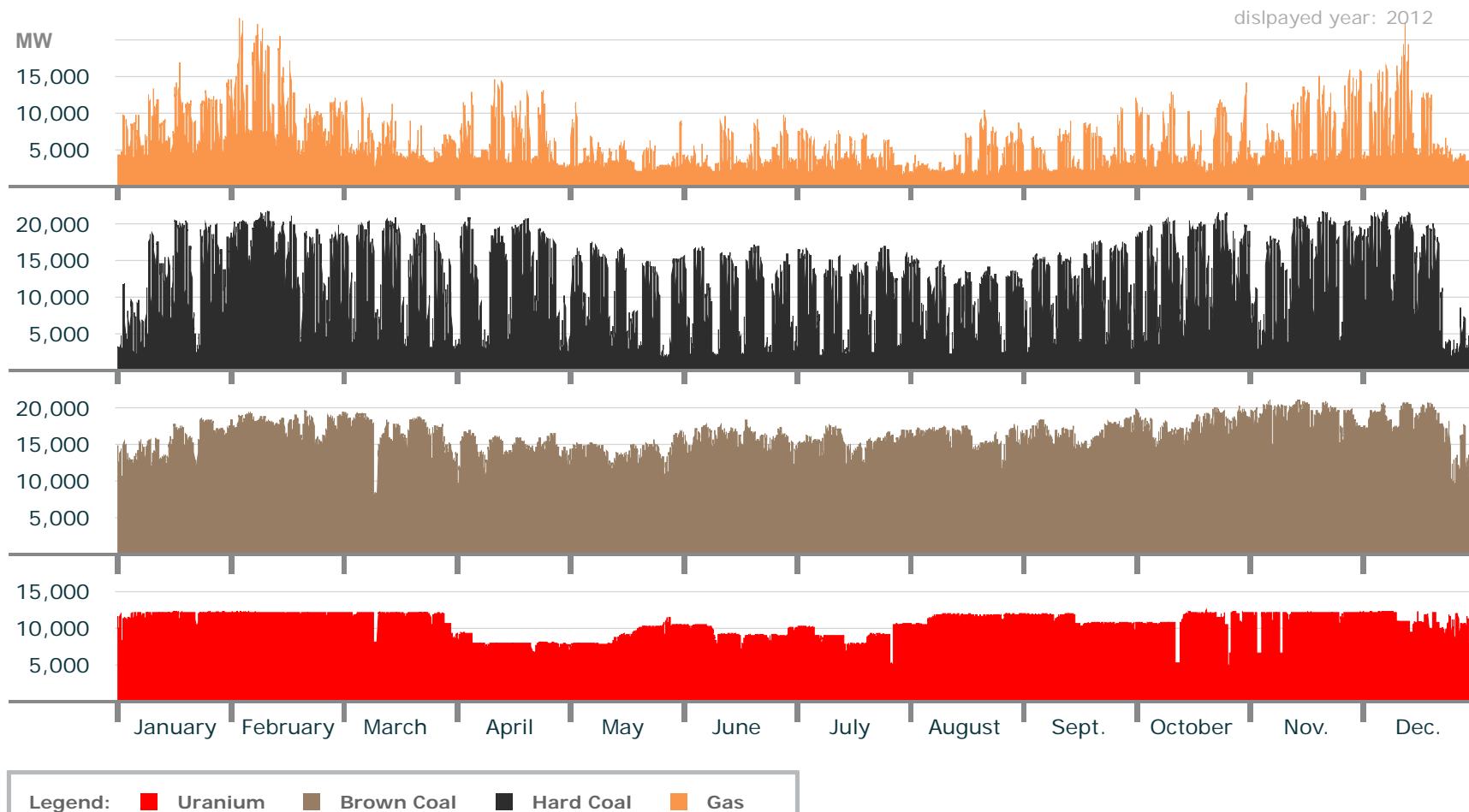
Real Production



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production: Uranium, Coal and Gas

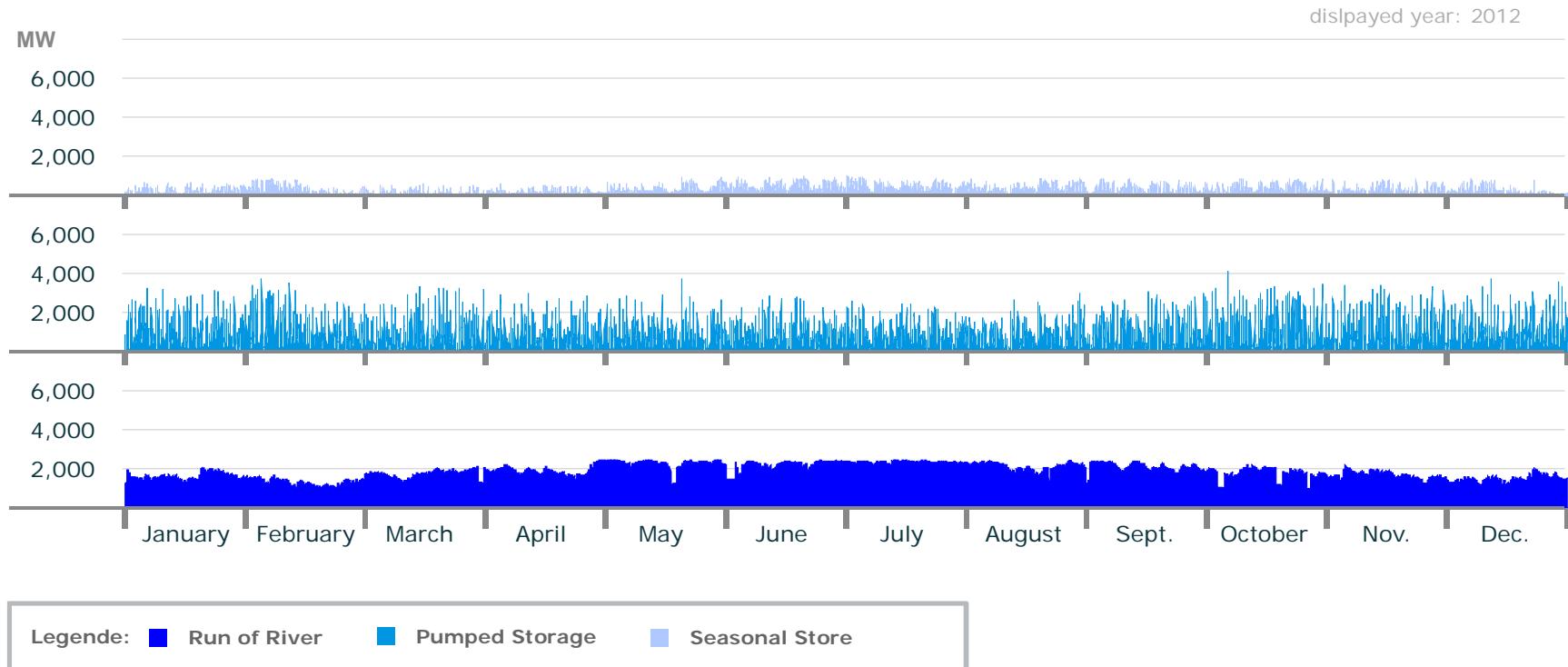
Real Production



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Production: Run of River, Pumped Storage and Seasonal Storage

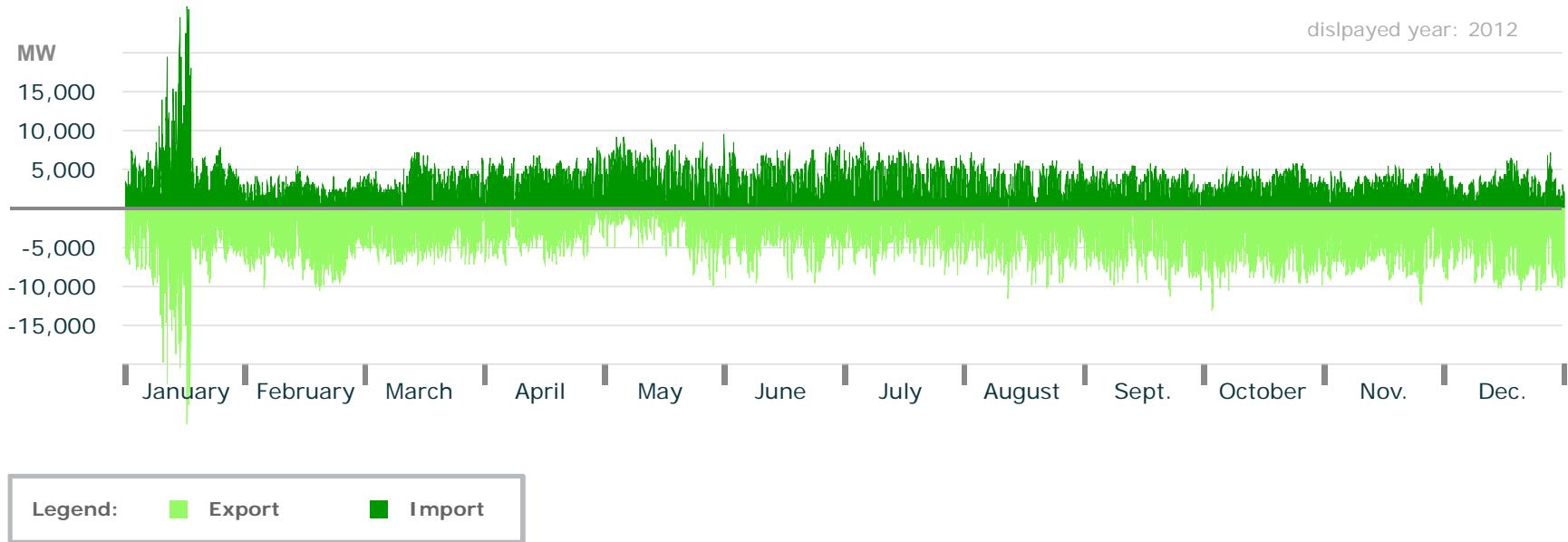
Real Production



Graph: B. Burger, Fraunhofer ISE; data: EEX Transparency Platform

Electricity Import and Export

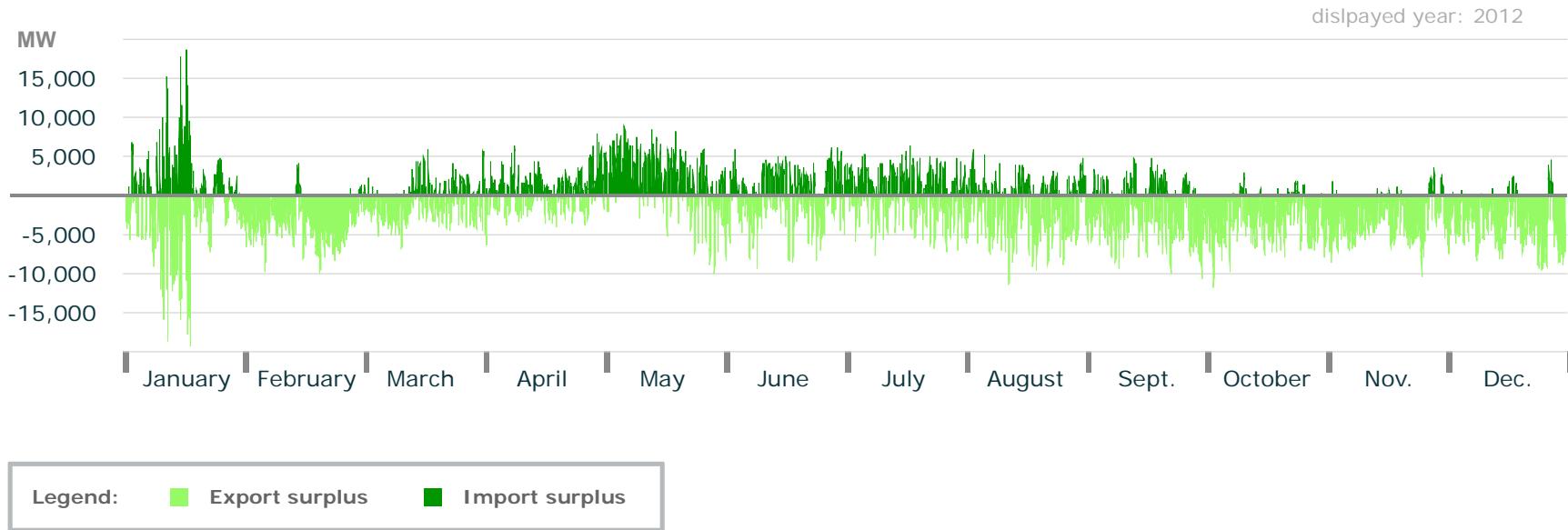
Import and Export



Graph: B. Burger, Fraunhofer ISE; data: Entso-e

Electricity Import and Export Balance

Import and Export Balance



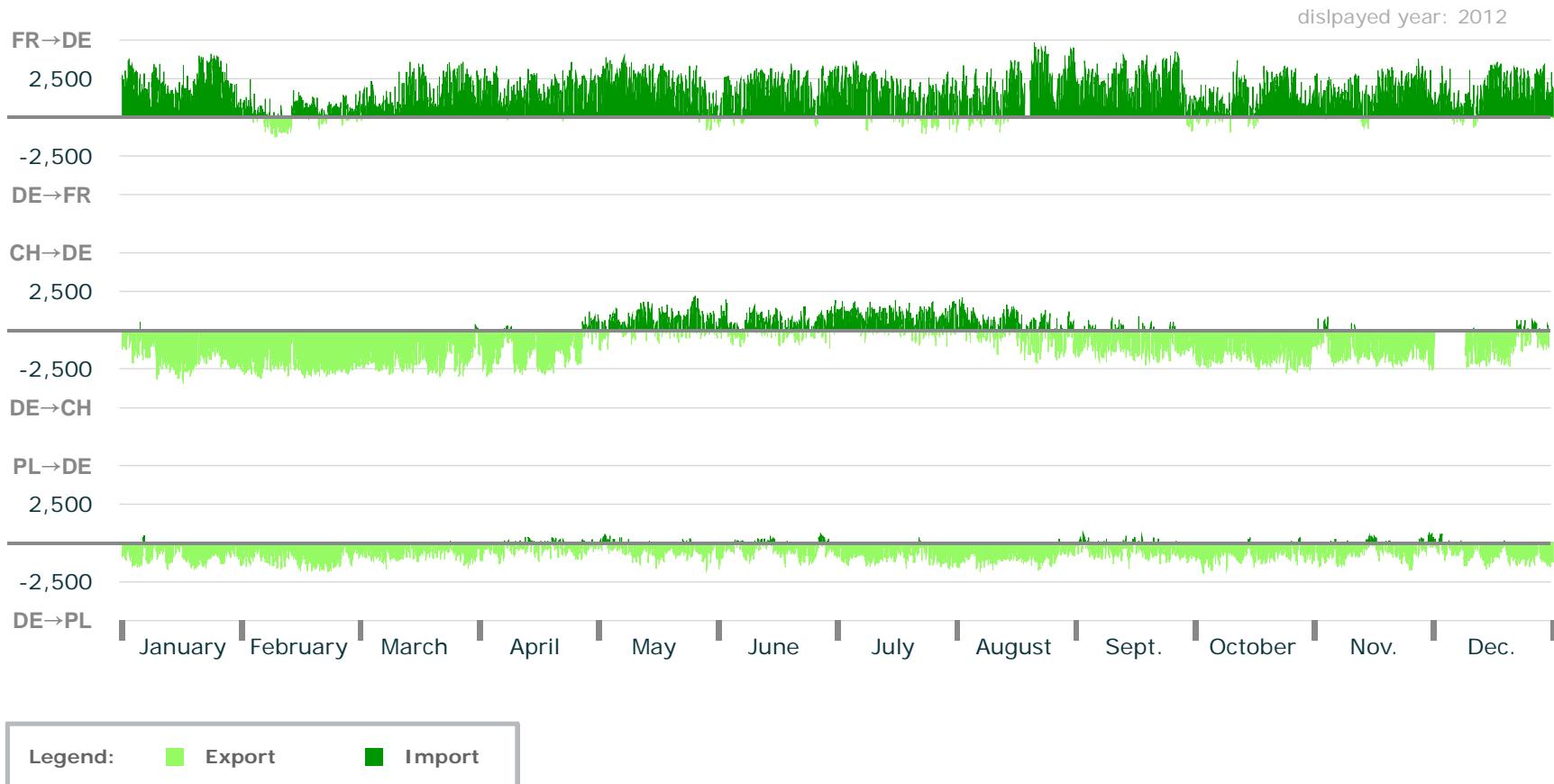
- The export surplus in 2012 was approx. 22 TWh.

Graph: B. Burger, Fraunhofer ISE; data: Entso-e

Electricity Import and Export

France, Switzerland and Poland

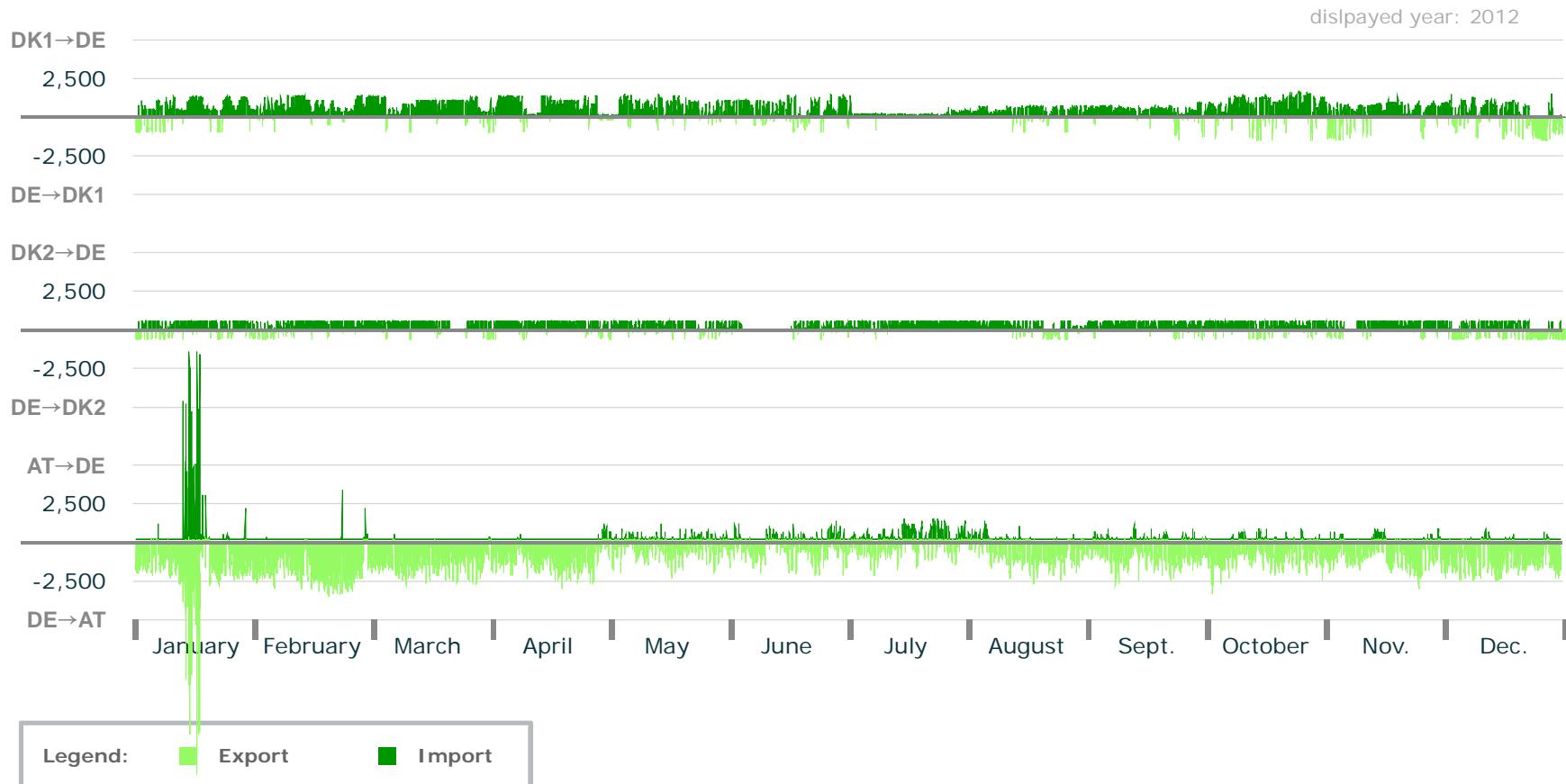
Import und Export



Graph: B. Burger, Fraunhofer ISE; data: Entso-e

Electricity Import and Export Denmark and Austria

Import und Export

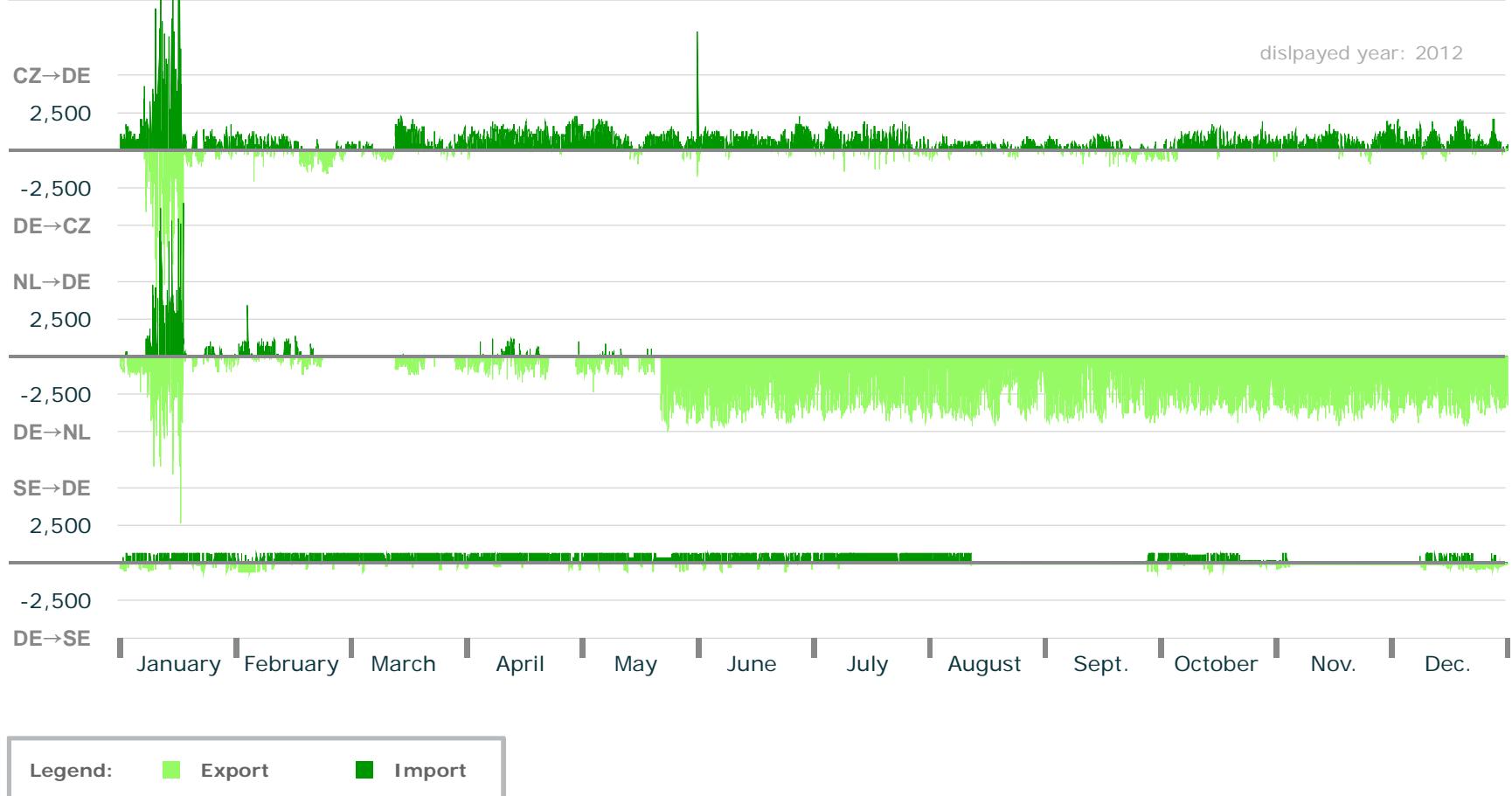


Graph: B. Burger, Fraunhofer ISE; data: Entso-e

Electricity Import and Export

Czech Republic, the Netherlands and Sweden

Import und Export



Legend: Export Import

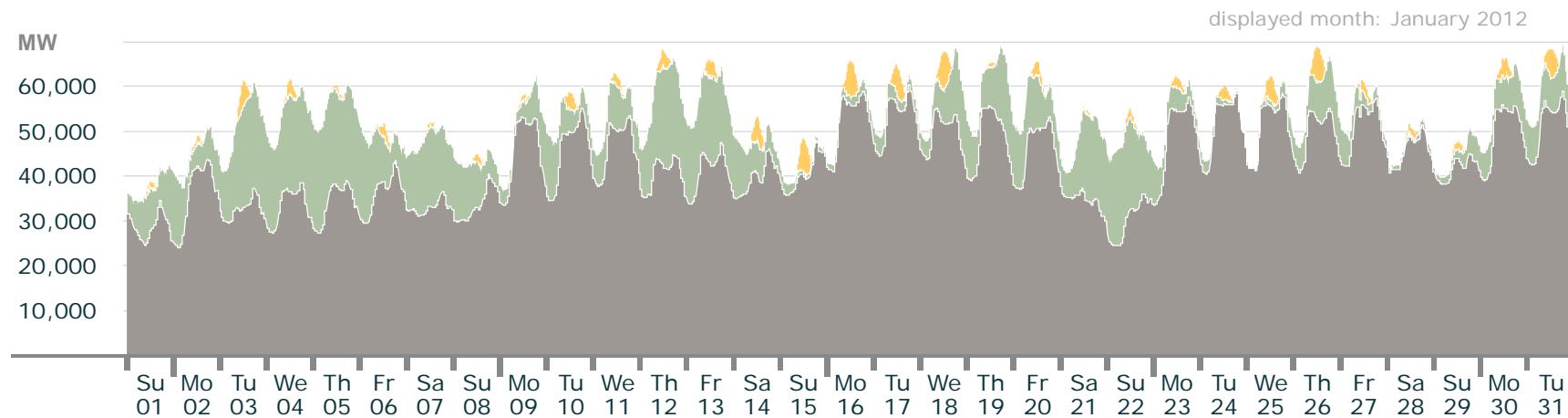
Graph: B. Burger, Fraunhofer ISE; data: Entso-e

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- Annual energies
 - Monthly energies
 - Weekly energies
 - Annual power curves
 - Monthly power curves
 - Monthly power curves for conventional, wind and solar
 - Monthly power curves with import and export
 - Detailed monthly power curves
 - Diurnal power courses
 - Weekly power curves
 - Exemplary daily power curves
-

Electricity Production in Germany: January 2012

Actual production

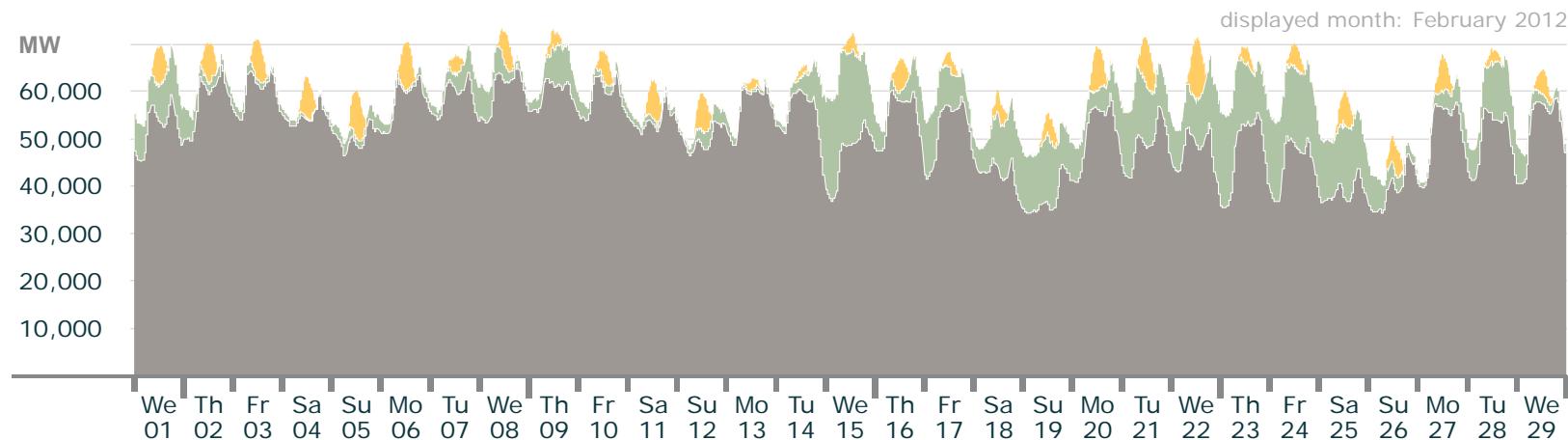


	max. power	date max. power	monthly energy
Solar	8.4 GW	18.01., 12:15 (+1:00)	0.54 TWh
Wind	24.1 GW	03.01., 17:45 (+1:00)	7.0 TWh
Conventional > 100 MW	60.3 GW	17.01., 18:00 (+1:00)	31.8 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: February 2012

Actual production

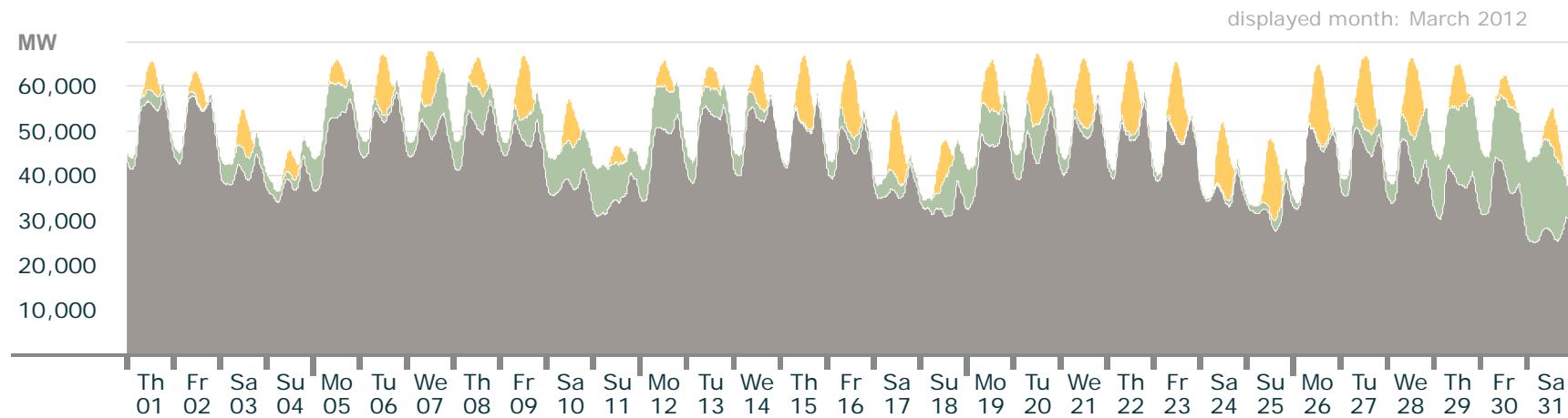


	max. power	date max. power	monthly energy
Solar	12.8 GW	22.02., 12:45 (+1:00)	1.0 TWh
Wind	21.5 GW	15.02., 03:15 (+1:00)	4.6 TWh
Conventional > 100 MW	65.9 GW	08.02., 18:00 (+1:00)	35.9 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: March 2012

Actual production

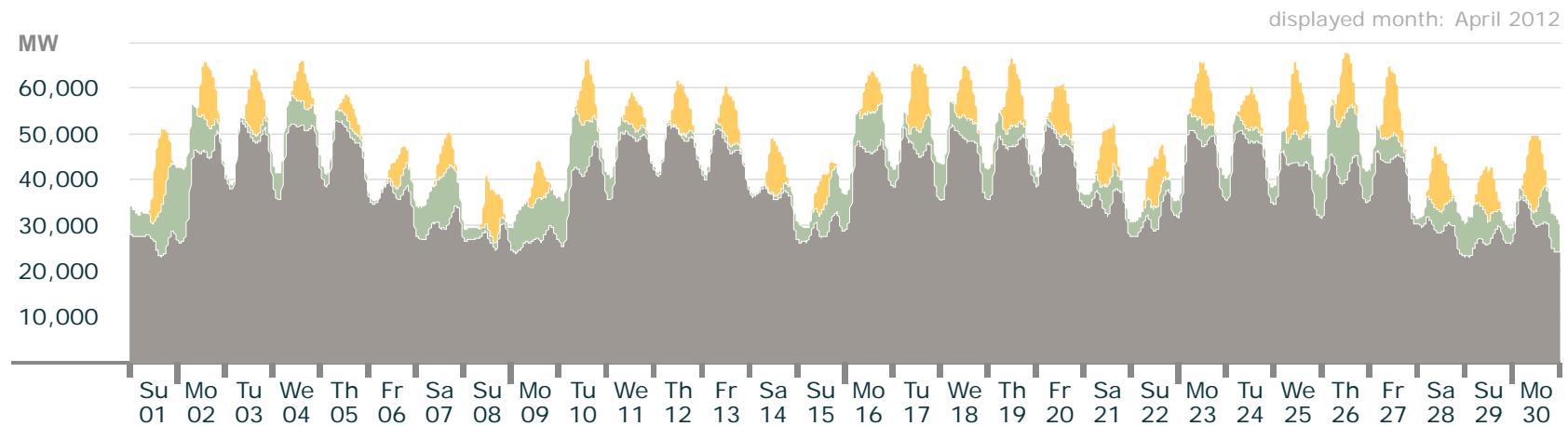


	max. power	date max. power	monthly energy
Solar	17.5 GW	28.03., 13:15 (+2:00)	2.3 TWh
Wind	20.3 GW	31.03., 10:00 (+2:00)	4.0 TWh
Conventional > 100 MW	58.9 GW	06.03., 19:00 (+1:00)	32.4 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: April 2012

Actual production

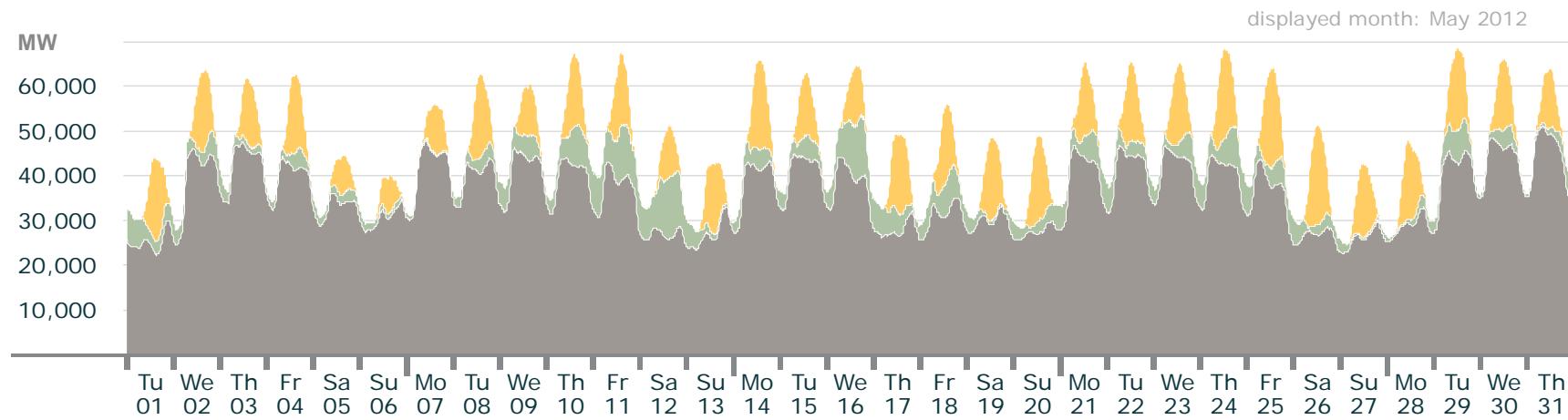


	max. power	date max. power	monthly energy
Solar	16.8 GW	30.04., 12:45 (+2:00)	2.6 TWh
Wind	16.5 GW	01.04., 23:30 (+2:00)	3.4 TWh
Konventionell > 100 MW	53.2 GW	05.04., 08:00 (+2:00)	28.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: May 2012

Actual production

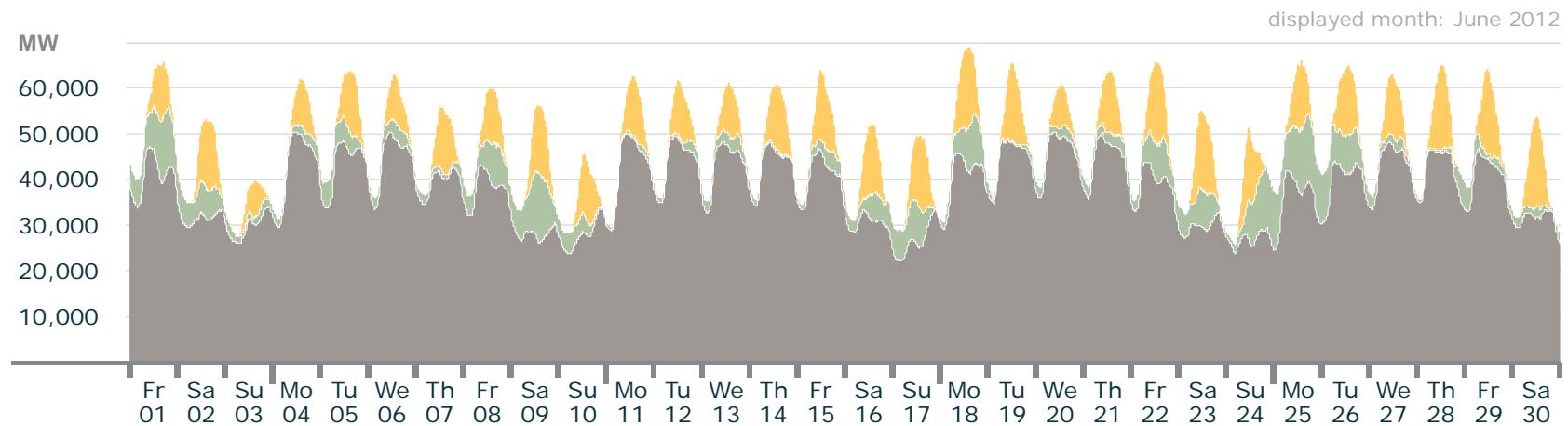


	max. power	date max. power	monthly energy
Solar	22.4 GW	25.05., 12:45 (+2:00)	4.1 TWh
Wind	14.1 GW	12.05., 17:00 (+2:00)	2.9 TWh
Conventional > 100 MW	51.2 GW	31.05., 11:00 (+2:00)	26.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: June 2012

Actual production

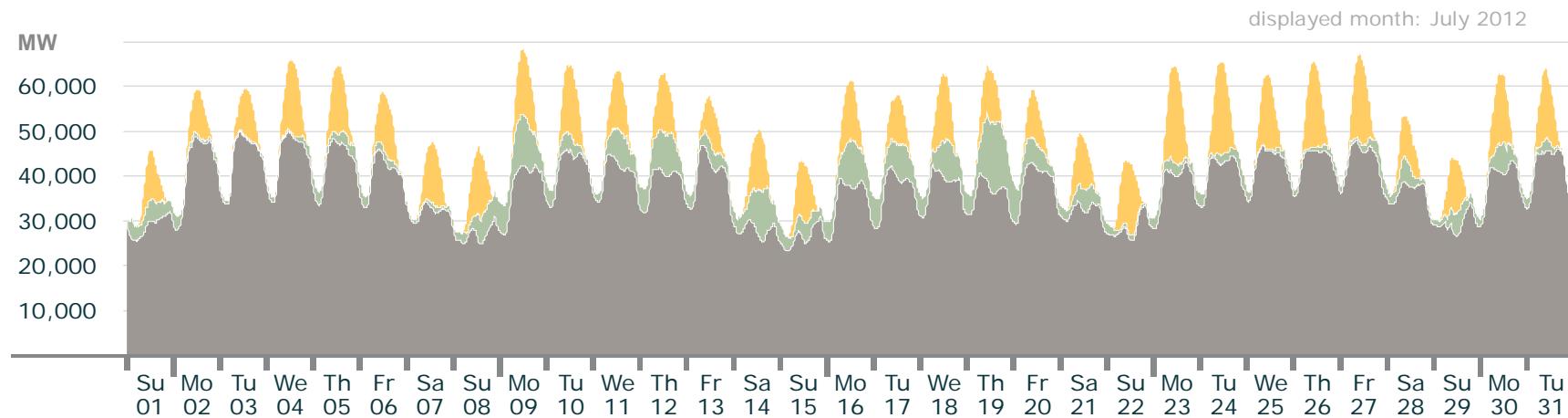


	max. power	date max. power	monthly energy
Solar	19.7 GW	30.06., 13:00 (+2:00)	3.7 TWh
Wind	15.3 GW	25.06., 18:45 (+2:00)	2.9 TWh
Conventional > 100 MW	50.5 GW	04.06., 11:00 (+2:00)	27.4 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: July 2012

Actual production

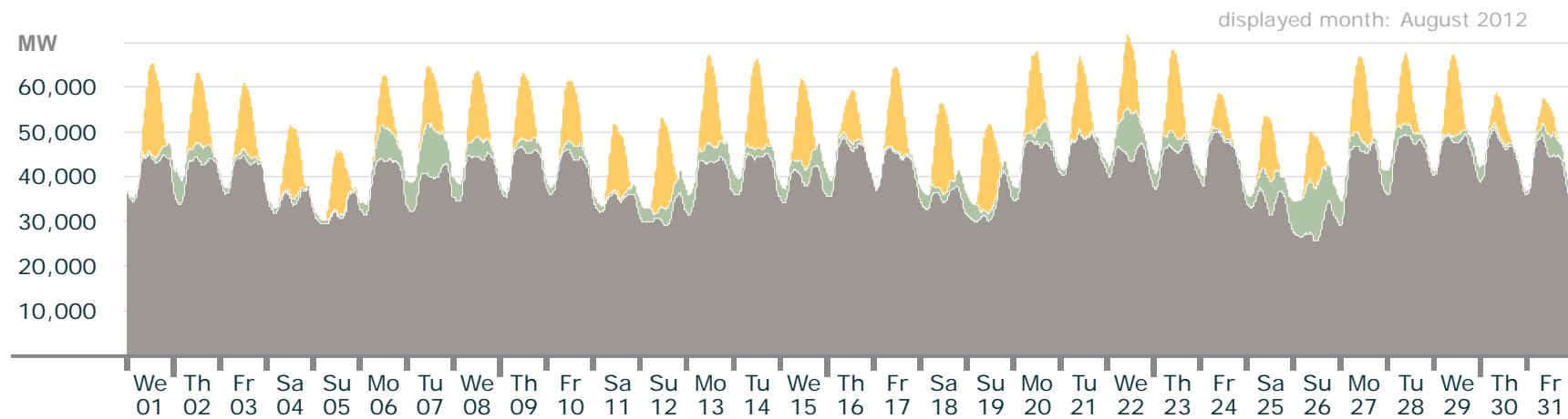


	max. power	date max. power	monthly energy
Solar	21.8 GW	23.07., 13:15 (+2:00)	3.7 TWh
Wind	16.2 GW	19.07., 16:30 (+2:00)	2.6 TWh
Conventional > 100 MW	50.3 GW	03.07., 10:00 (+2:00)	27.7 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: August 2012

Actual production

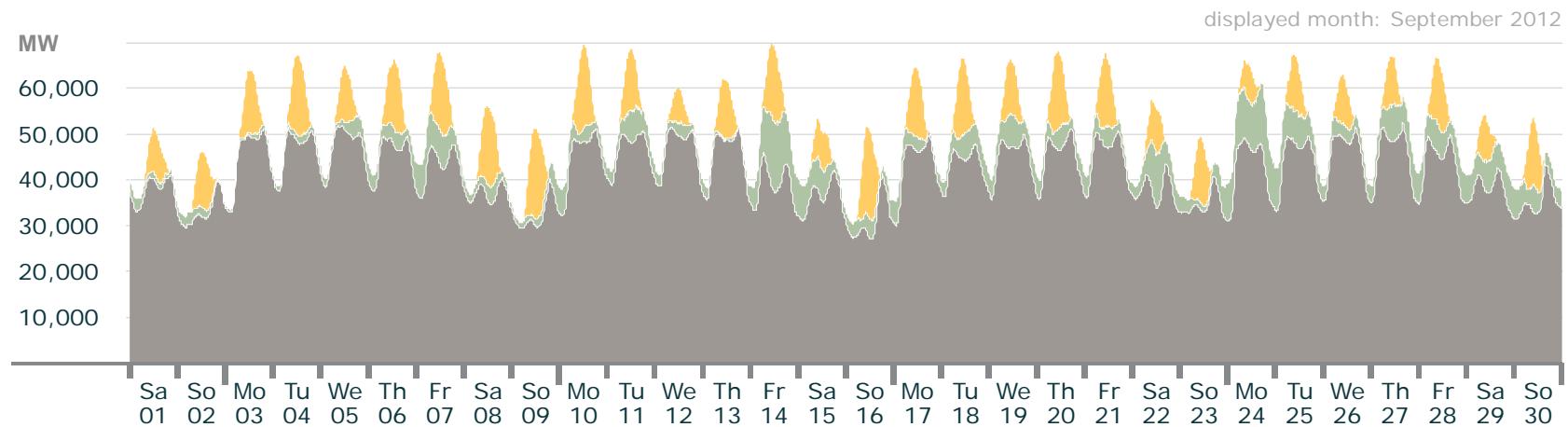


	max. power	date max. power	monthly energy
Solar	20.6 GW	01.08., 13:15 (+2:00)	3.9 TWh
Wind	12.8 GW	26.08., 14:45 (+2:00)	2.2 TWh
Conventional > 100 MW	51.1 GW	30.08., 10:00 (+2:00)	30.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: September 2012

Actual production

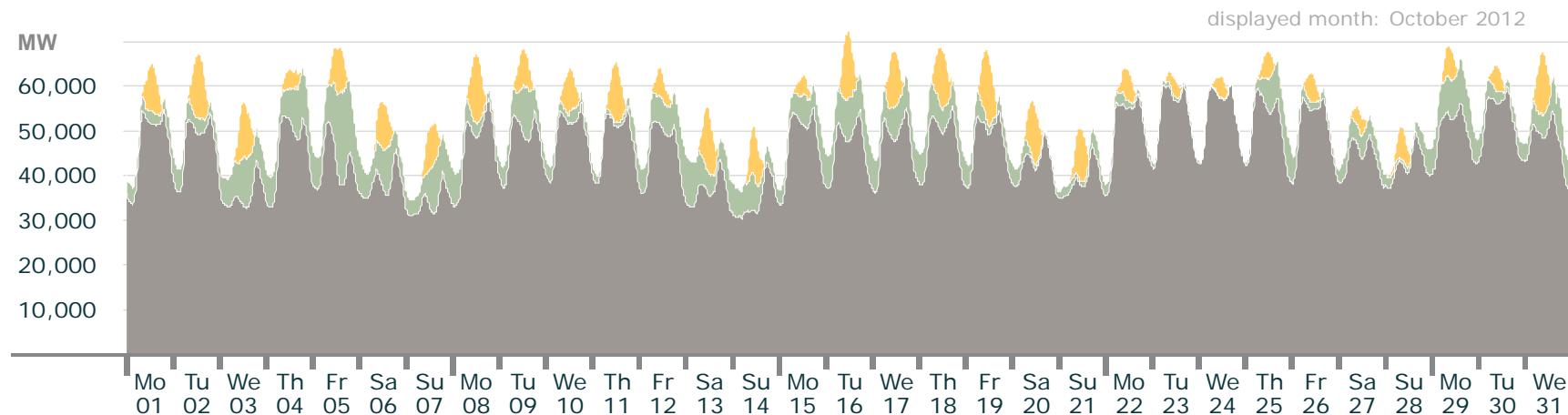


	max. power	date max. power	monthly energy
Solar	19.6 GW	09.09., 13:15 (+2:00)	2.9 TWh
Wind	15.6 GW	14.09., 12:00 (+2:00)	3.0 TWh
Conventional > 100 MW	52.7 GW	27.09., 19:00 (+2:00)	30.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: October 2012

Actual production

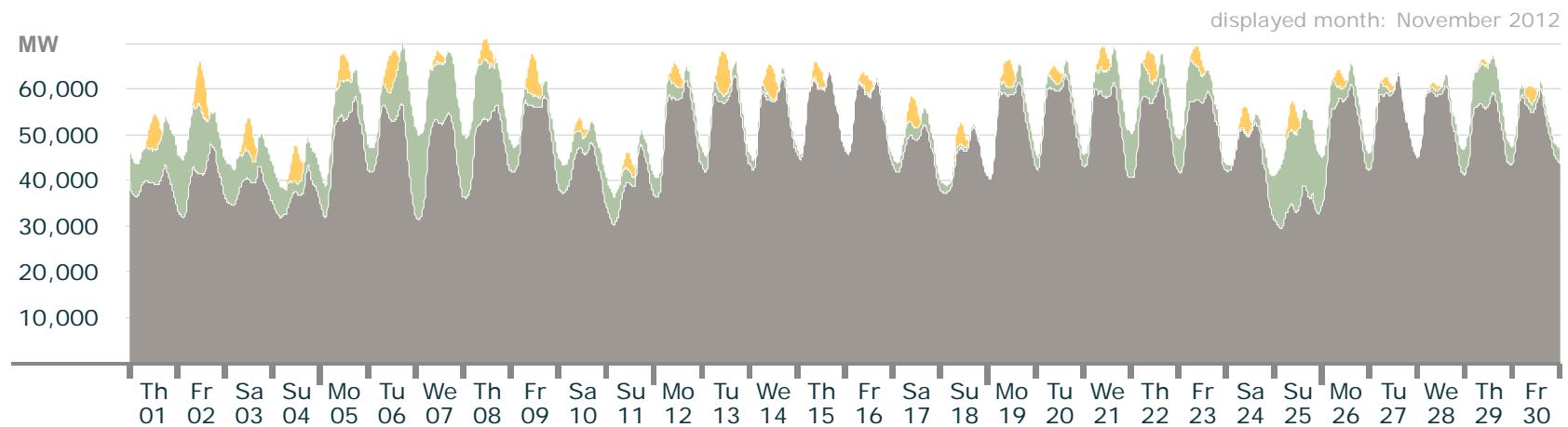


	max. power	date max. power	monthly energy
Solar	15.7 GW	19.10., 13:15 (+2:00)	1.8 TWh
Wind	21.1 GW	05.10., 15:45 (+2:00)	3.7 TWh
Conventional > 100 MW	60.9 GW	24.10., 19:00 (+2:00)	34.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: November 2012

Actual production

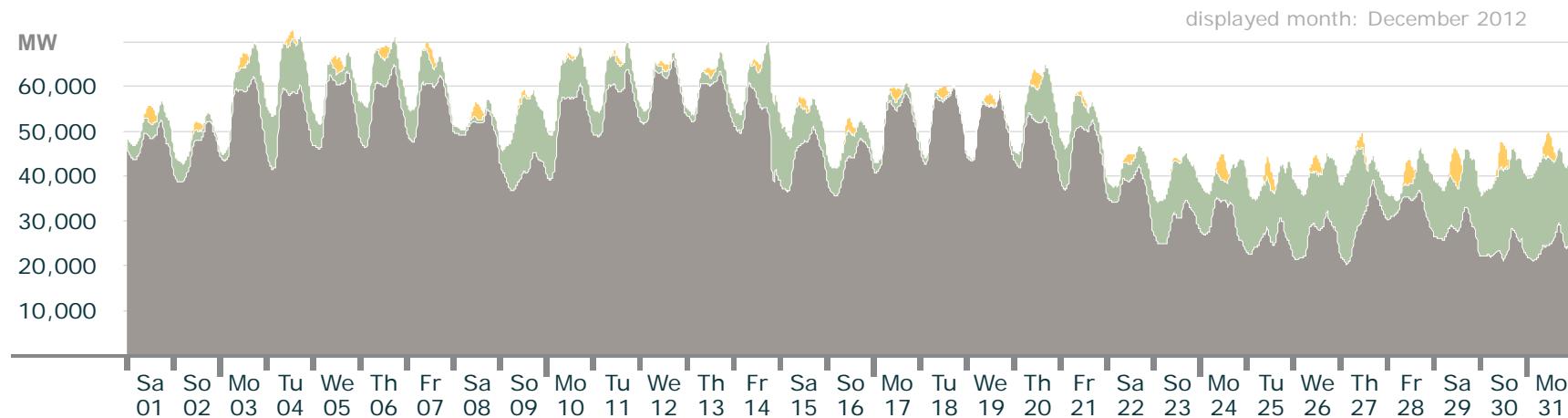


	max. power	date max. power	monthly energy
Solar	9.6 GW	13.11., 12:15 (+1:00)	0.8 TWh
Wind	19.7 GW	07.11., 01:00 (+1:00)	3.9 TWh
Conventional > 100 MW	64.2 GW	15.11., 18:00 (+1:00)	35.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Electricity Production in Germany: December 2012

Actual production



	max. power	date max. power	monthly energy
Solar	8.3 GW	29.12., 12:15 (+1:00)	0.4 TWh
Wind	20.9 GW	31.12., 07:30 (+1:00)	5.6 TWh
Conventional > 100 MW	66.5 GW	12.12., 17:00 (+1:00)	32.9 TWh

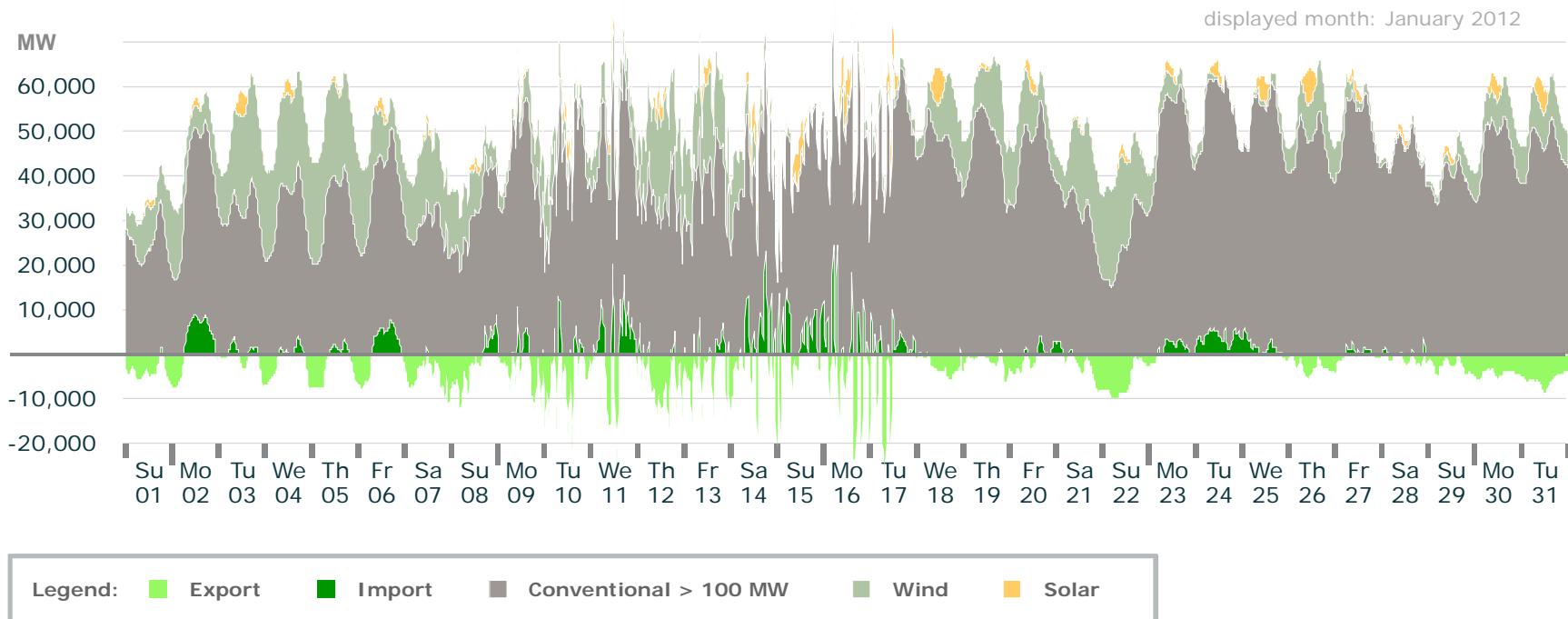
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

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Electricity Production in Germany: January 2012

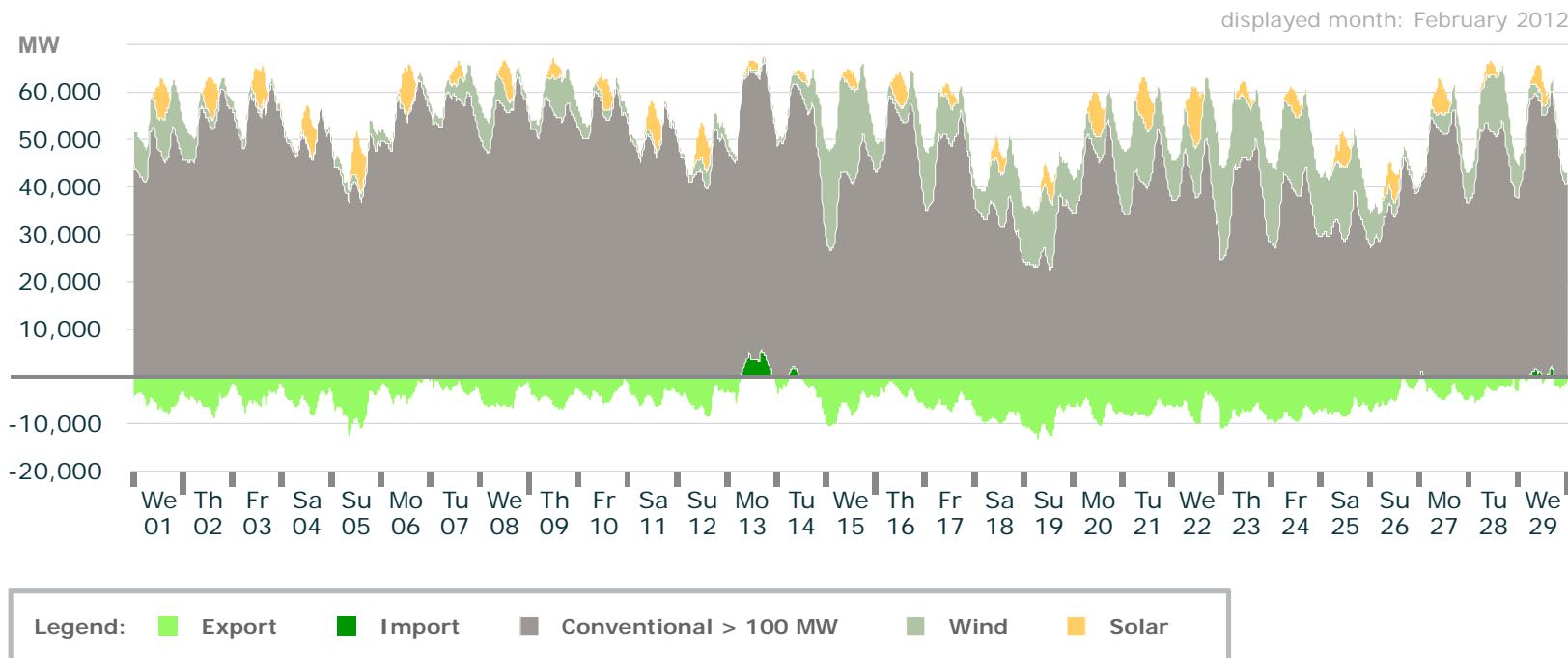
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: February 2012

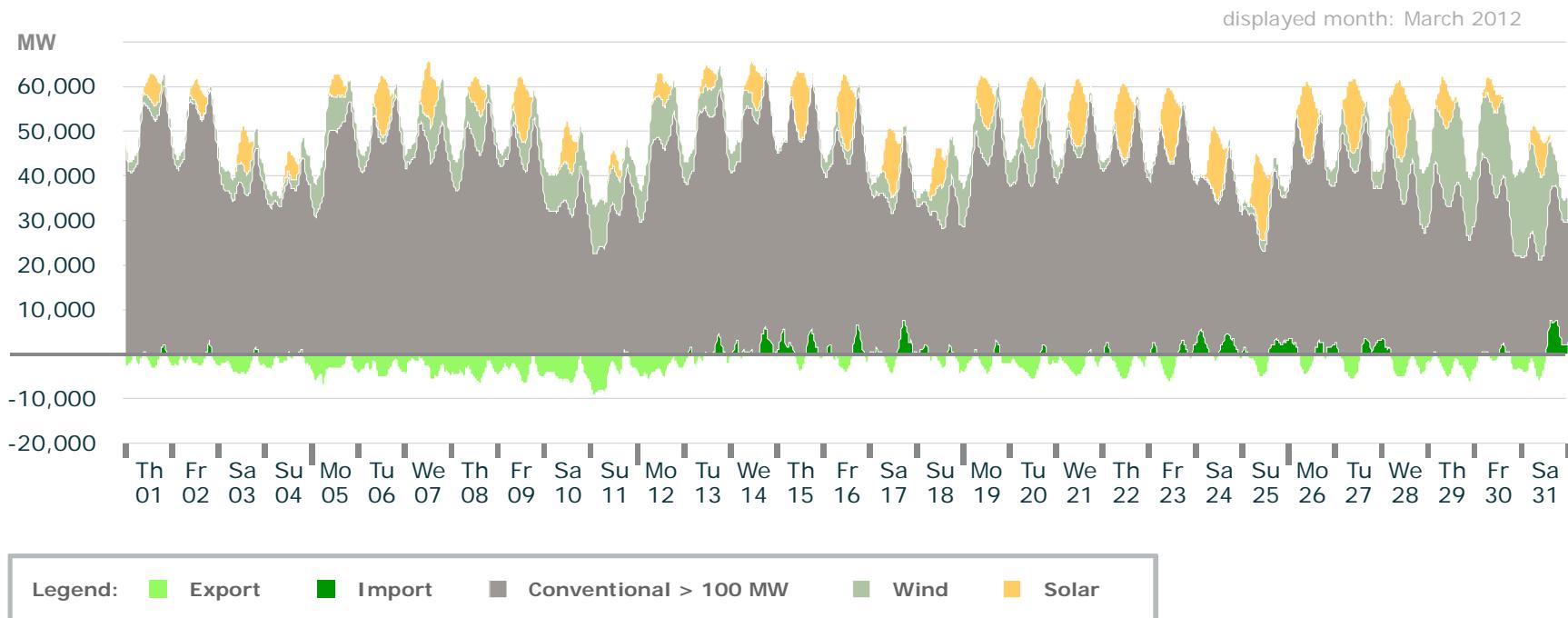
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: March 2012

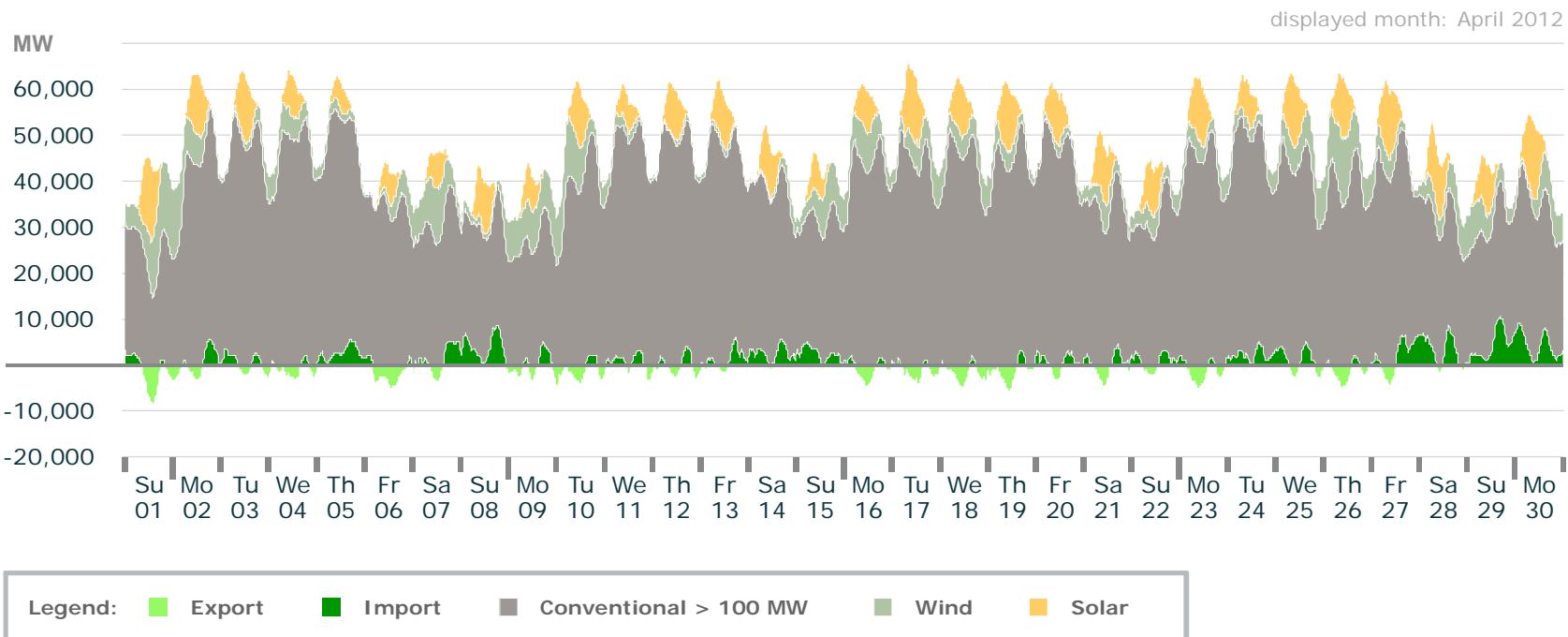
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: April 2012

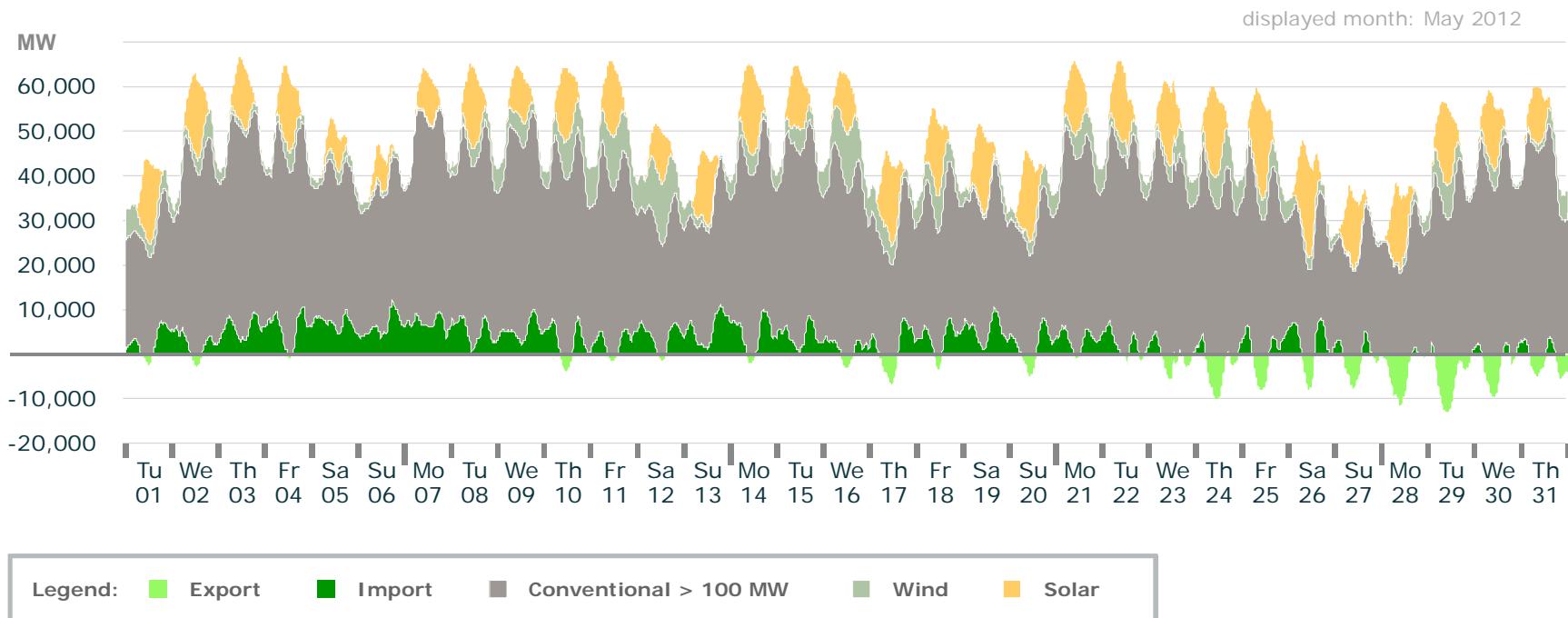
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: May 2012

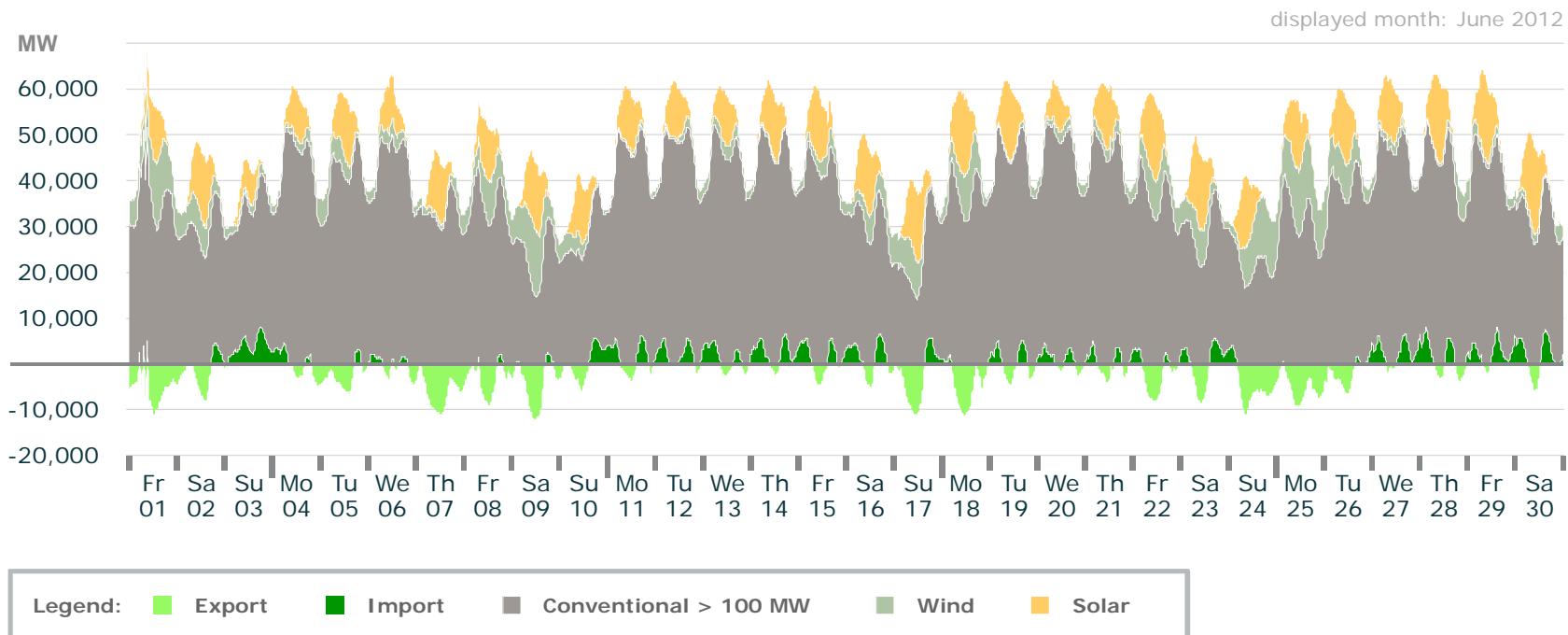
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: June 2012

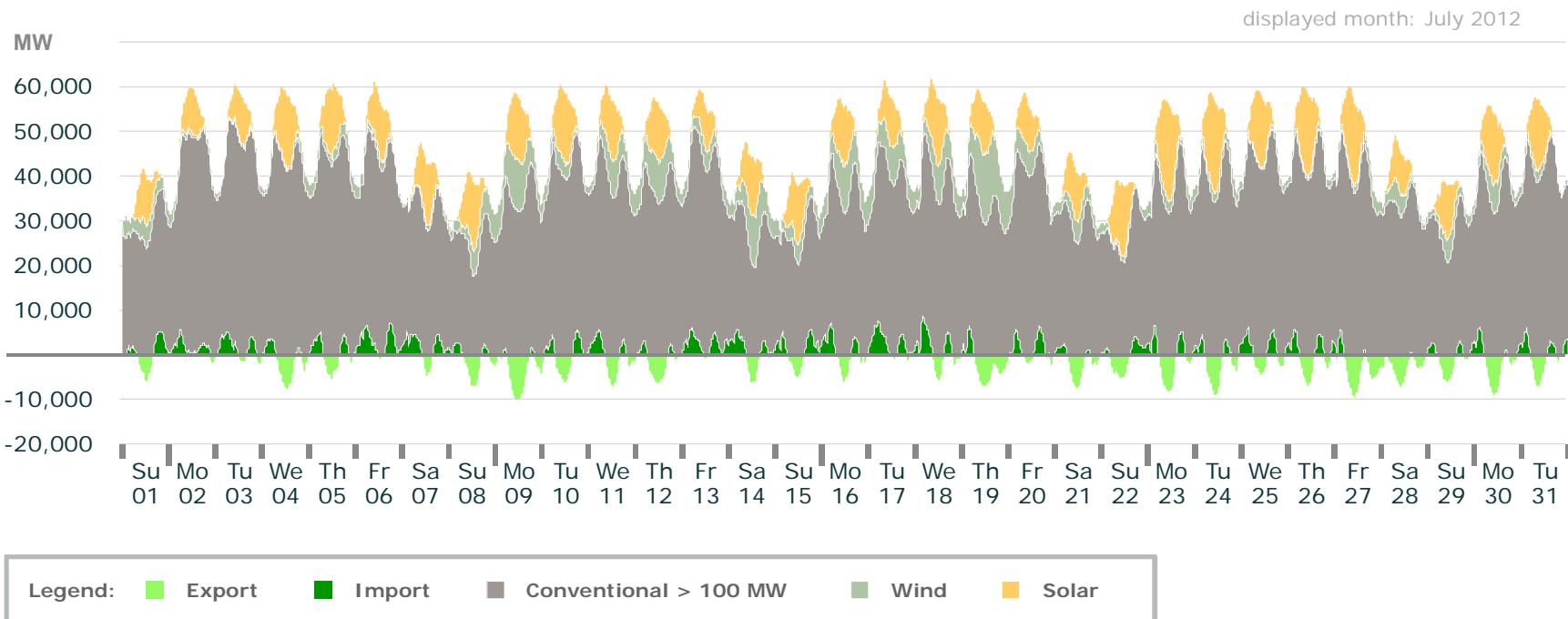
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: July 2012

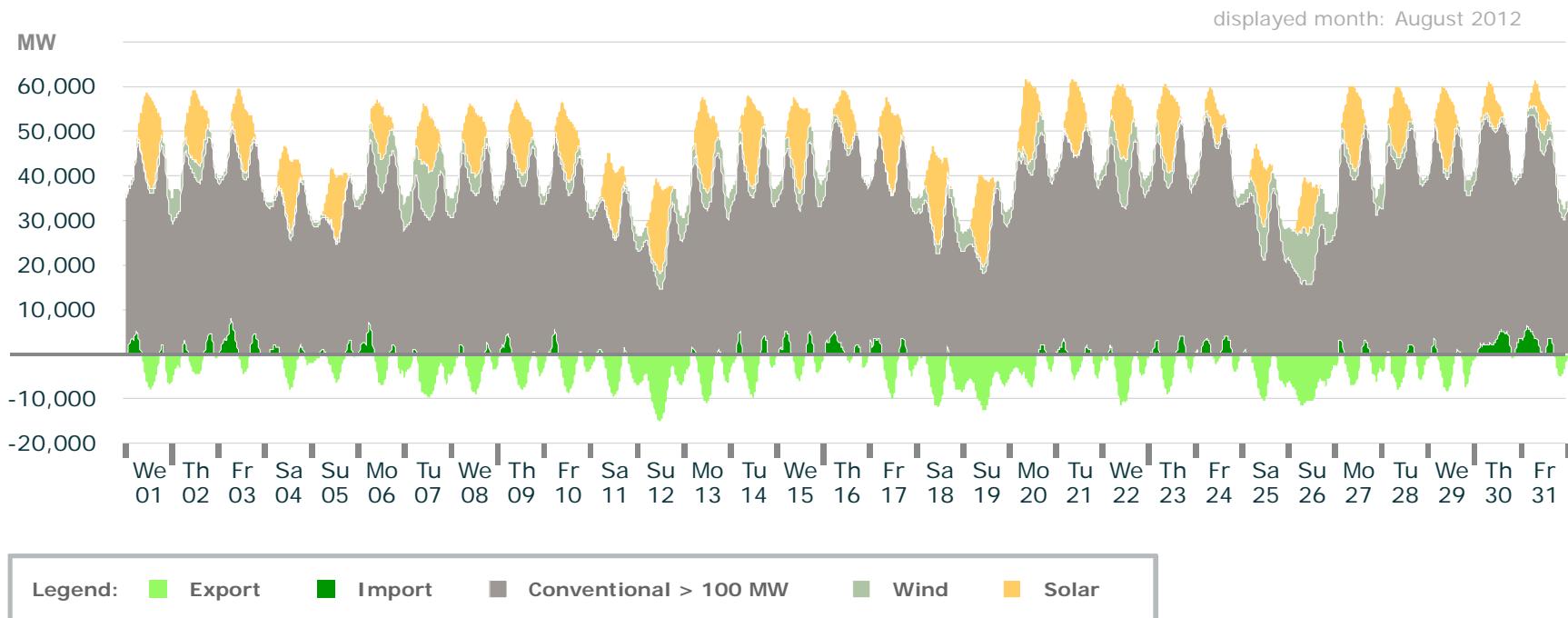
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: August 2012

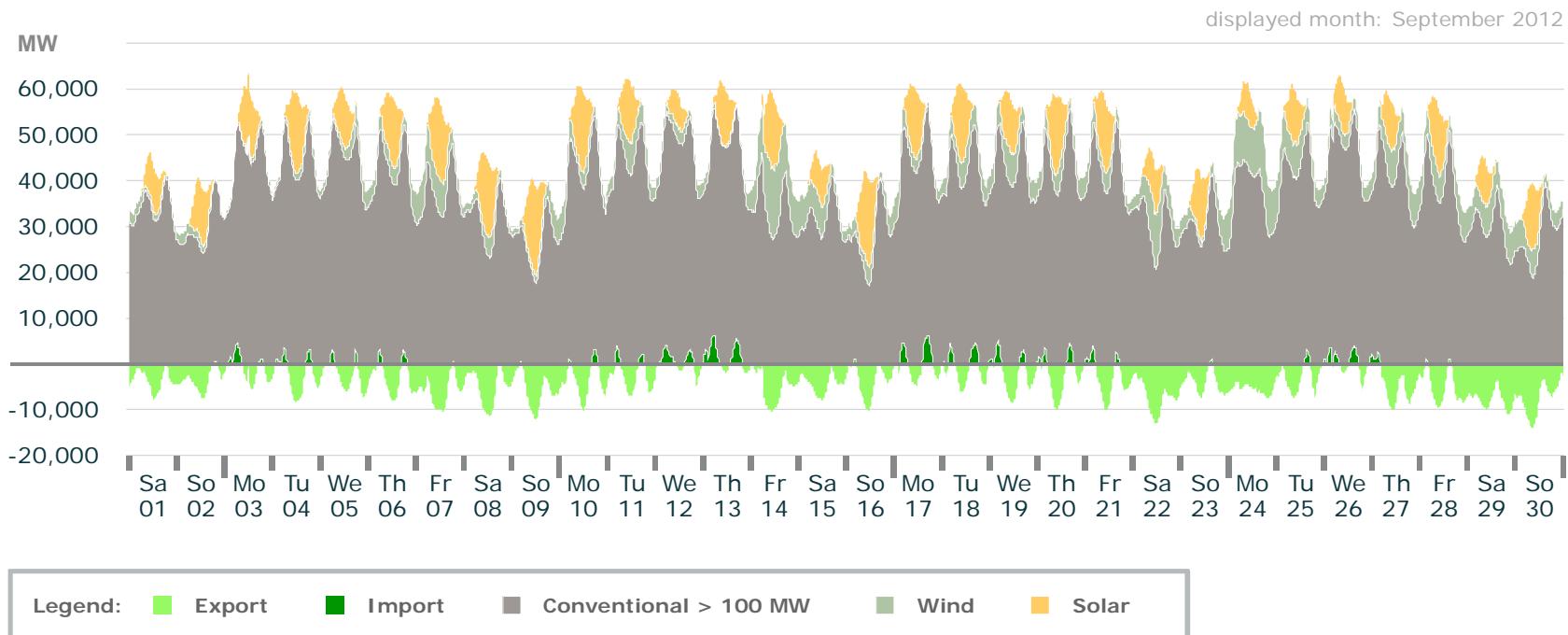
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: September 2012

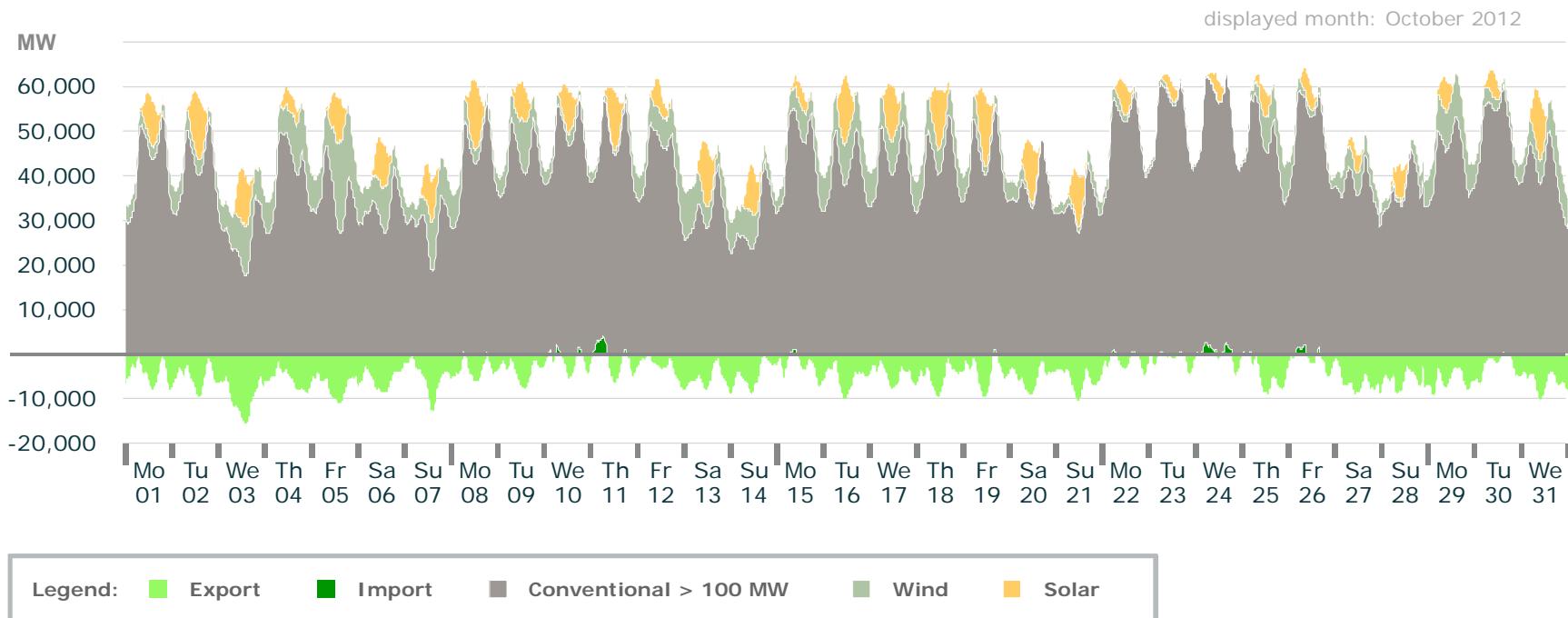
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: October 2012

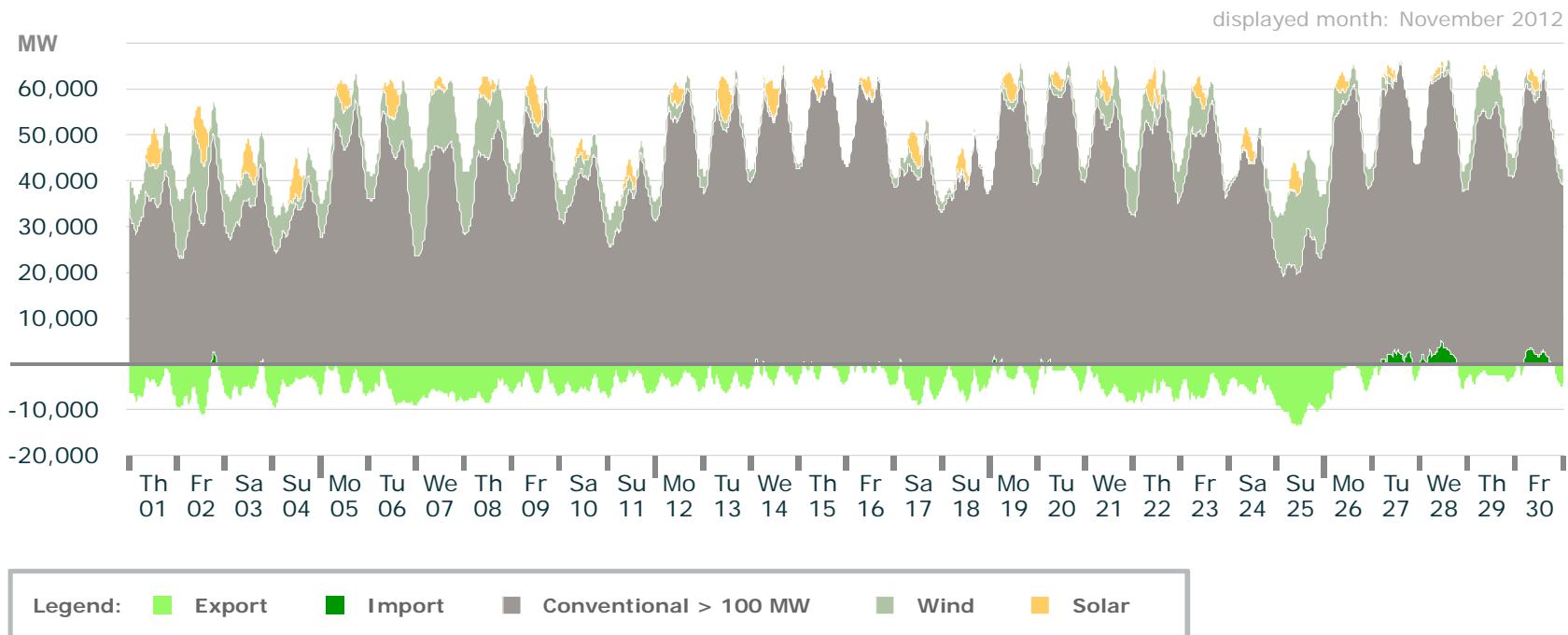
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: November 2012

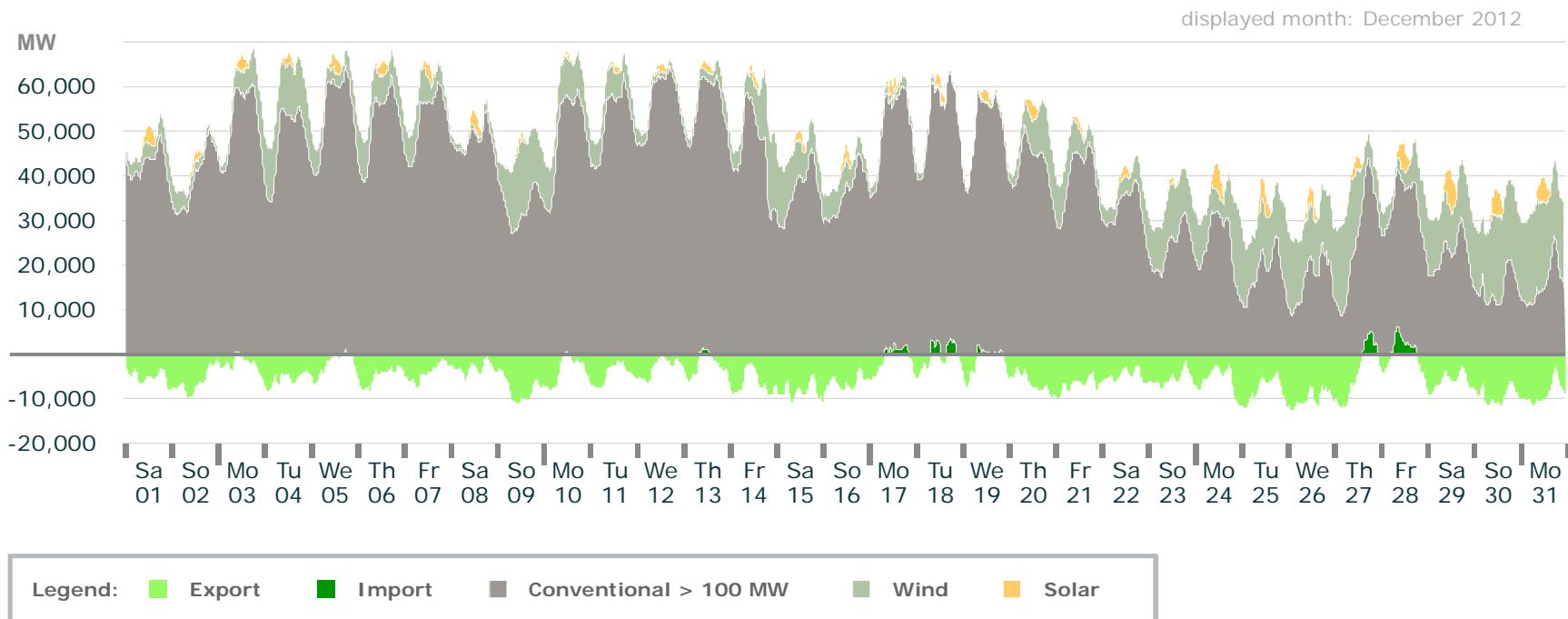
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform; Entso-e

Electricity Production in Germany: December 2012

Actual production

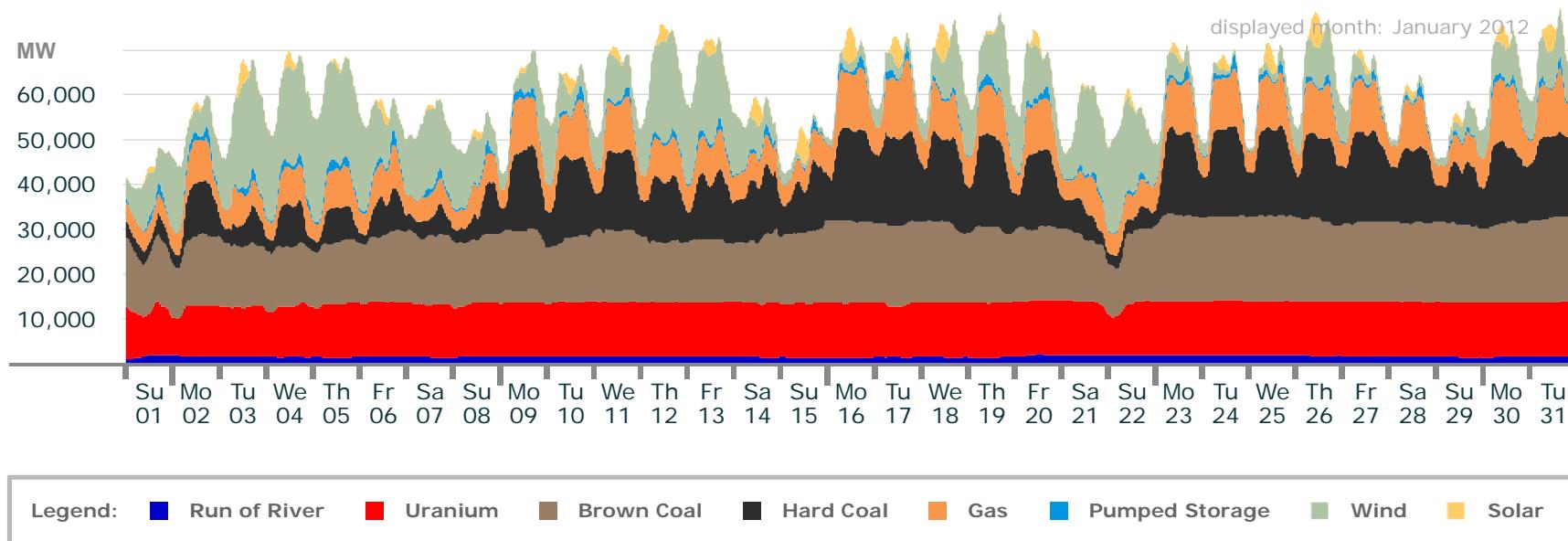


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Detailed Electricity Production: January 2012

Actual production

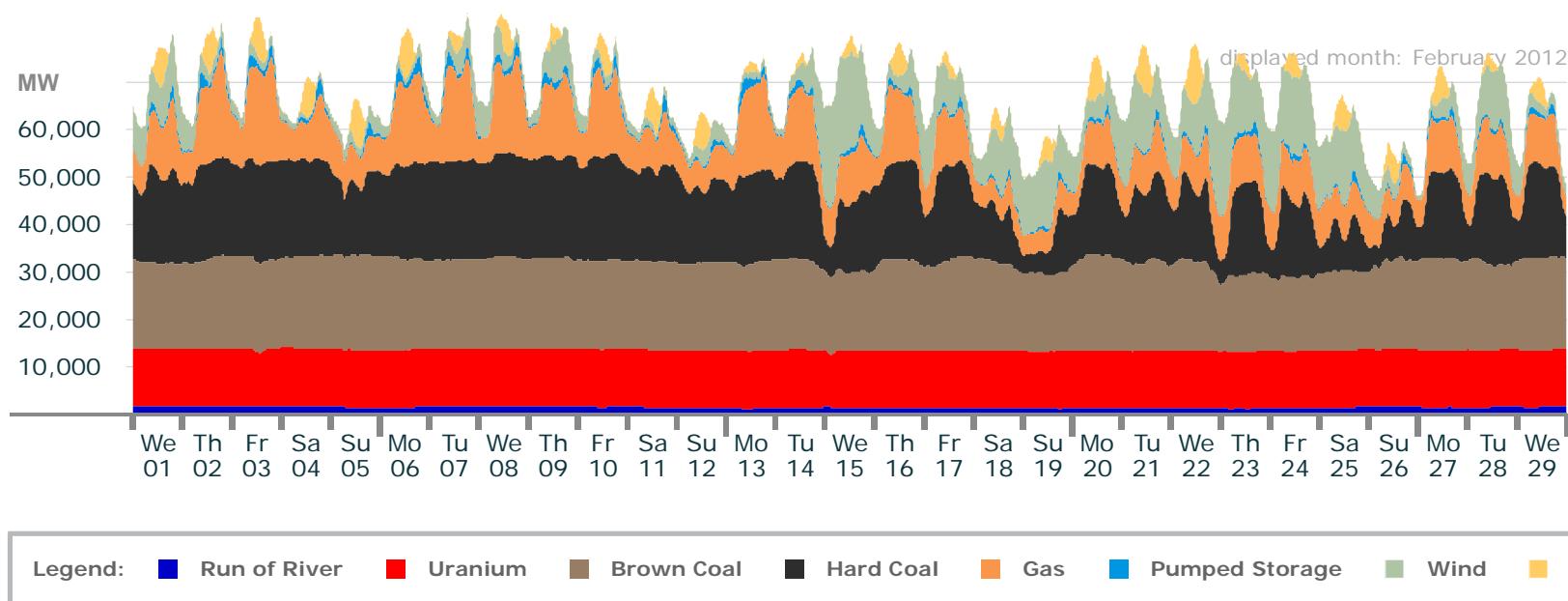


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.4	8.3	10.5	2.2	3.7	0	0.3	0
max. power (GW)	2.5	12.2	19.5	20.8	16.5	3.5	24.1	8.4
monthly energy (TWh)	1.5	8.8	11.8	9.0	5.7	0.63	7.0	0.54

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: February 2012

Actual production

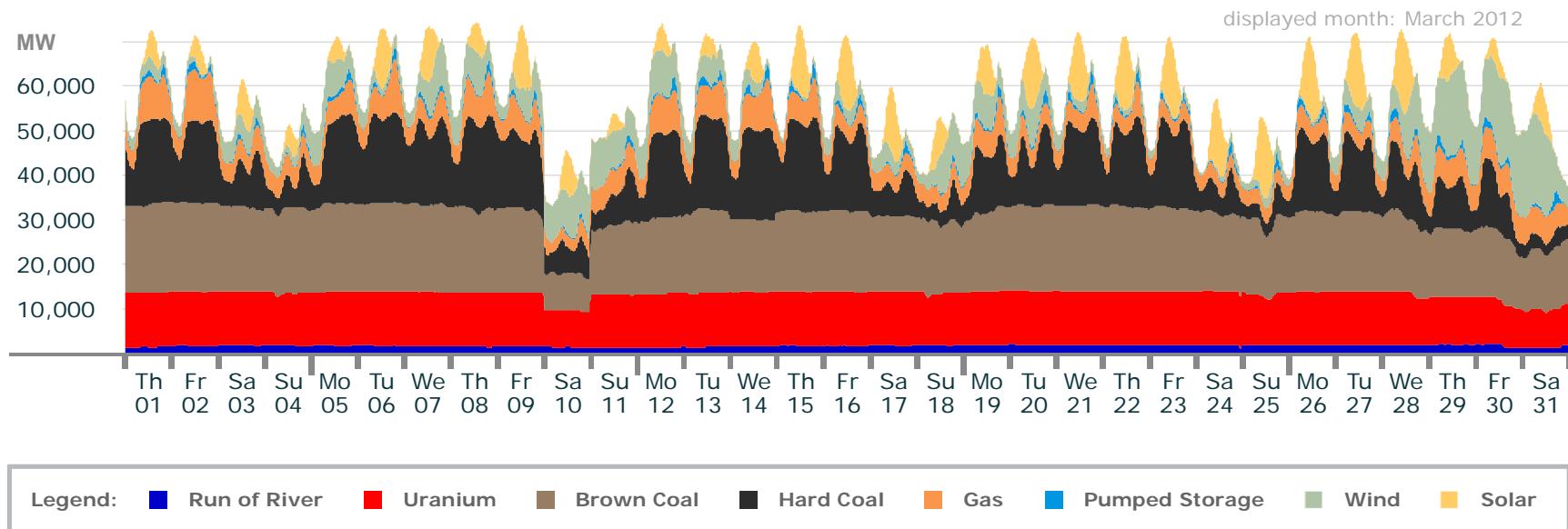


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.3	11.0	14.1	3.8	4.2	0	0.23	0
max. power (GW)	2.0	12.2	20.6	22.0	22.4	4.0	21.5	12.8
monthly energy (TWh)	1.2	8.4	12.7	11.2	6.5	0.55	4.6	1.0

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: March 2012

Actual production

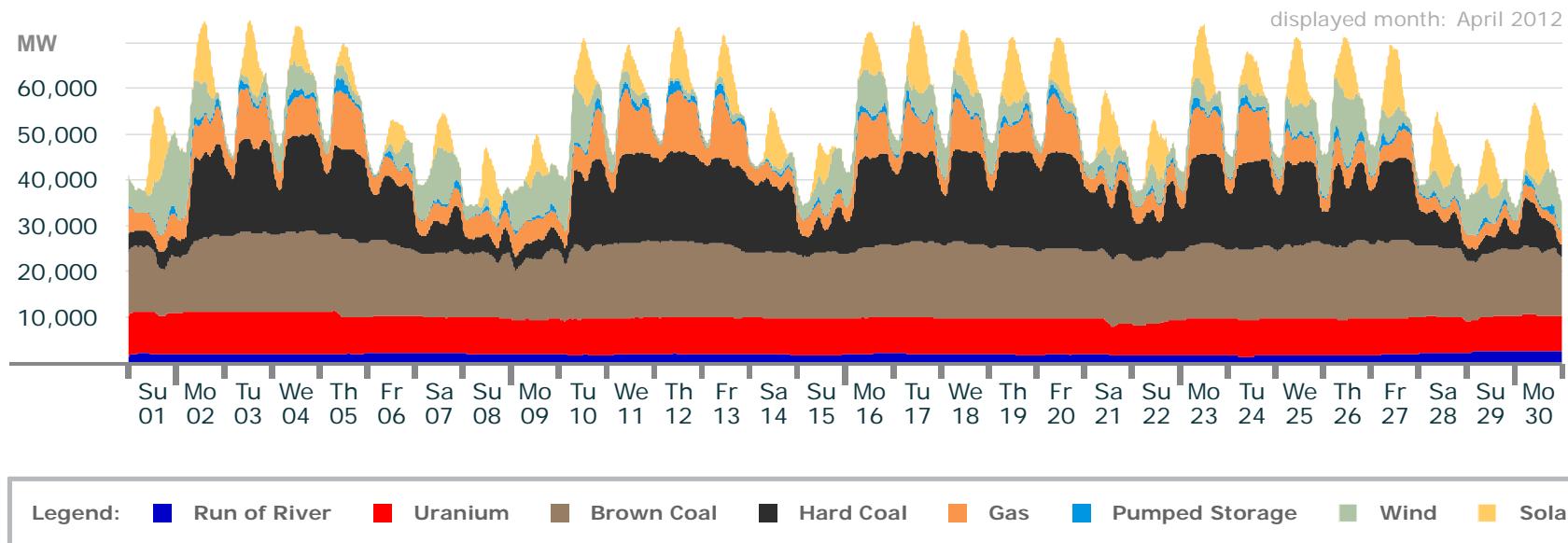


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.2	8.0	7.3	2.4	2.3	0	0.3	0
max. power (GW)	2.6	12.1	20.4	21.1	11.8	3.6	20.3	17.5
monthly energy (TWh)	1.4	8.7	13.4	9.0	4.3	0.54	4.0	2.3

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: April 2012

Actual production

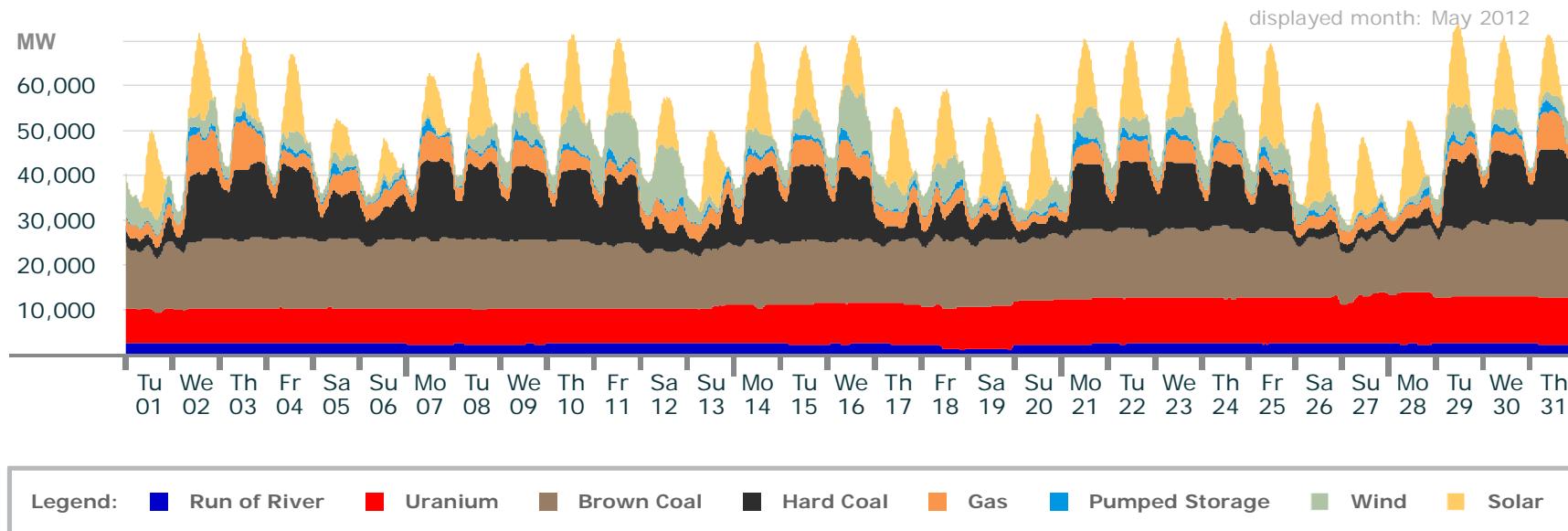


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.7	6.2	10.0	2.6	2.0	0	0.2	0
max. power (GW)	3.0	9.4	17.7	21.1	14.2	3.2	16.5	16.8
monthly energy (TWh)	1.4	5.8	11.3	9.5	4.1	0.52	3.4	2.6

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: May 2012

Actual production



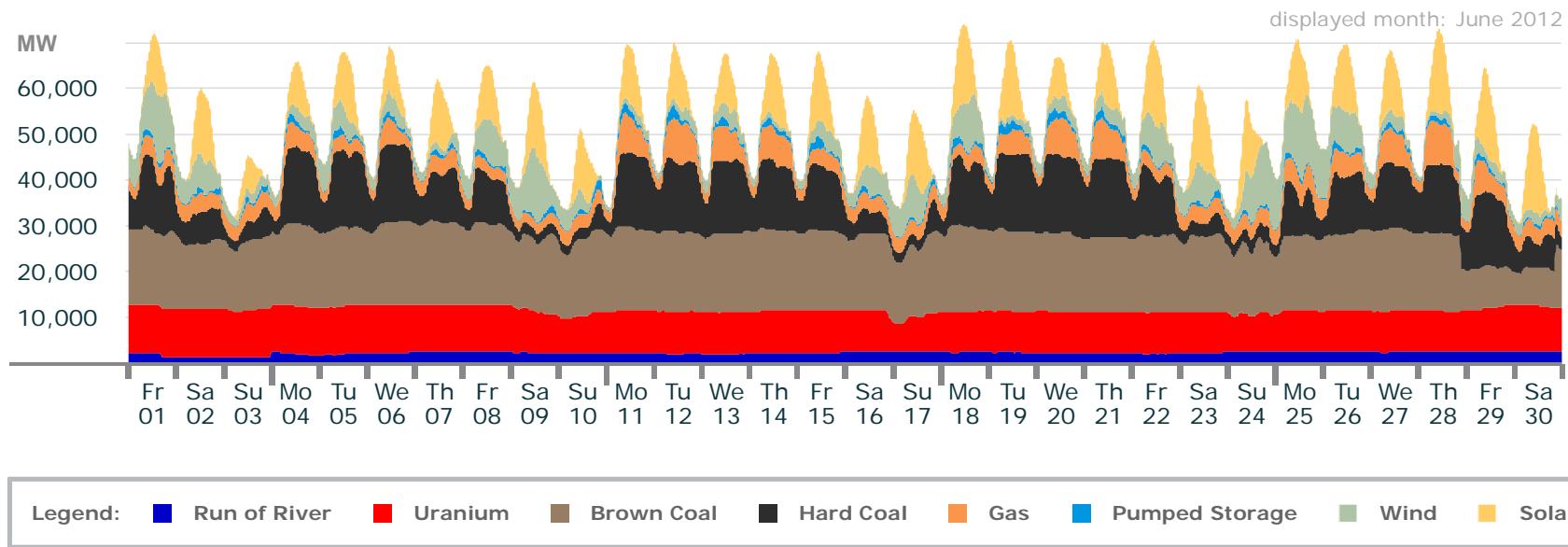
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.5	6.9	11.2	1.5	1.9	0	0.26	0
max. power (GW)	3.0	11.4	17.6	17.8	11.1	4.0	14.1	22.4
monthly energy (TWh)	1.6	6,7	10.3	7.7	3.0	0.54	2.9	4.1

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: June 2012

Actual production

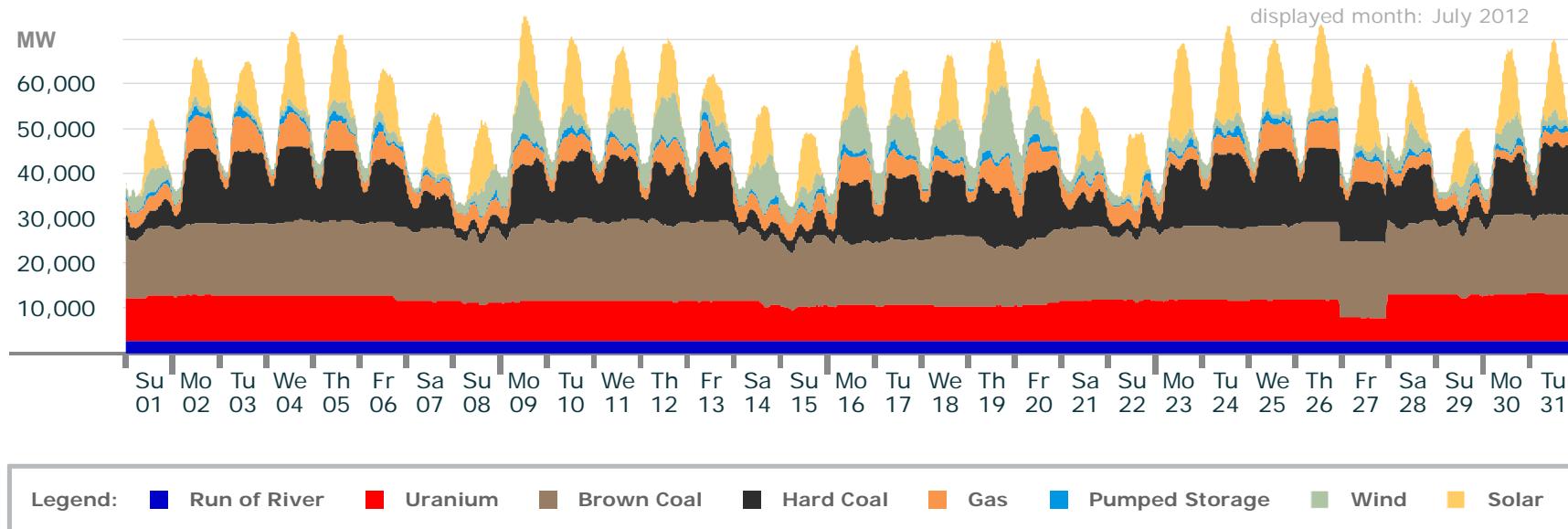


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.7	5.9	6.9	2.1	1.8	0	0.2	0
max. power (GW)	2.9	10.5	19.1	17.2	9.5	3.1	15.3	19.7
monthly energy (TWh)	1.8	6.7	11.3	7.1	2.9	0.46	2.9	3.7

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: July 2012

Actual production



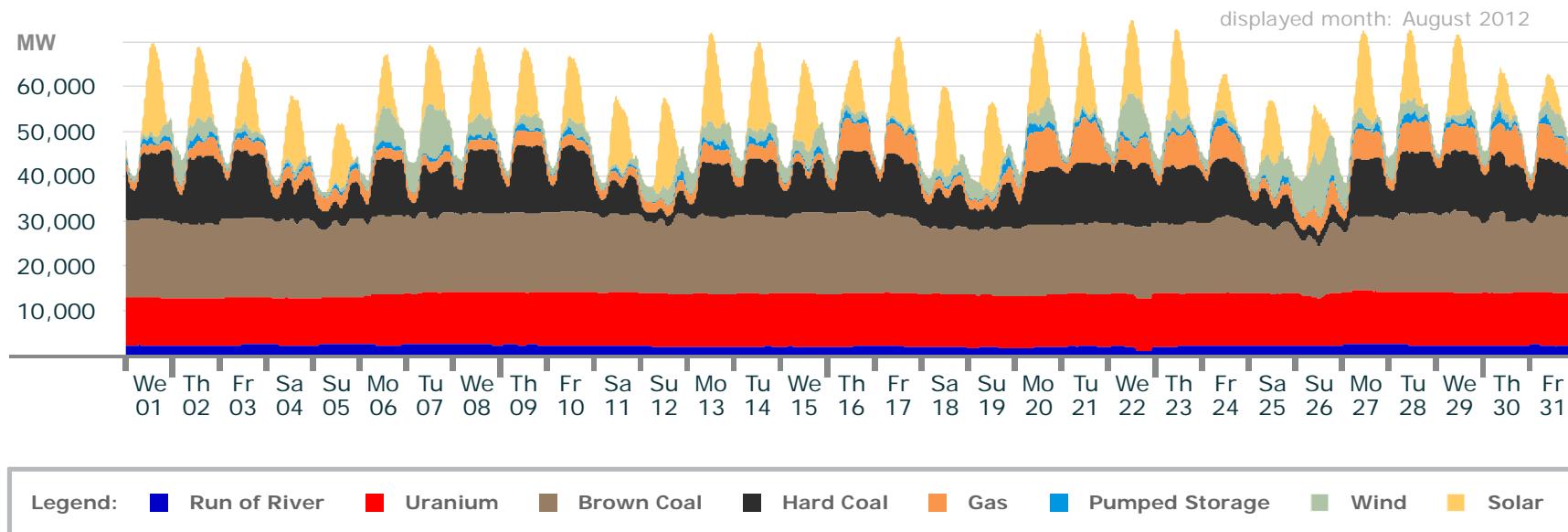
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	5.2	12.4	2.1	1.6	0	0.12	0
max. power (GW)	2.8	10.6	18.5	17.1	7.8	2.8	16.2	21.8
monthly energy (TWh)	1.5	6.8	11.5	7.2	2.9	0.50	2.6	3.7

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: August 2012

Actual production

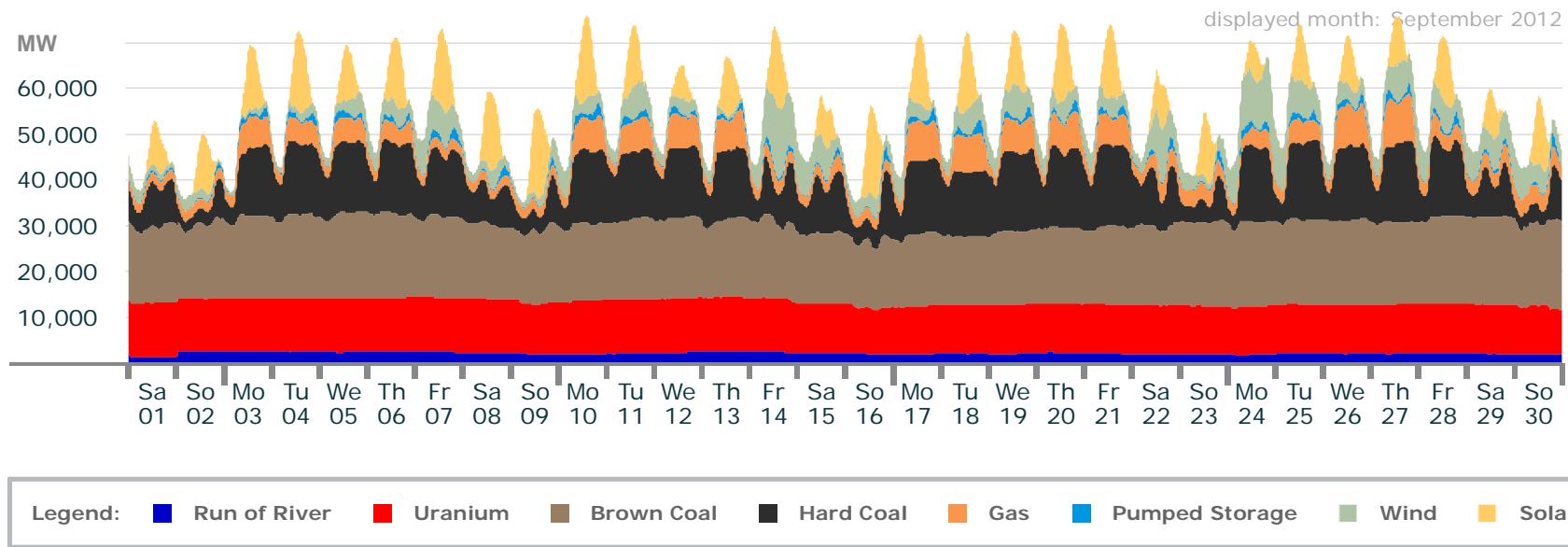


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.2	10.4	11.7	2.2	1.5	0	0.2	0
max. power (GW)	2.7	11.9	18.3	15.9	10.2	3.2	12.8	20.6
monthly energy (TWh)	1.3	8.6	11.2	7.6	2.9	0.49	2.2	3.9

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform and German Federal Statistical Office

Detailed Electricity Production: September 2012

Actual production

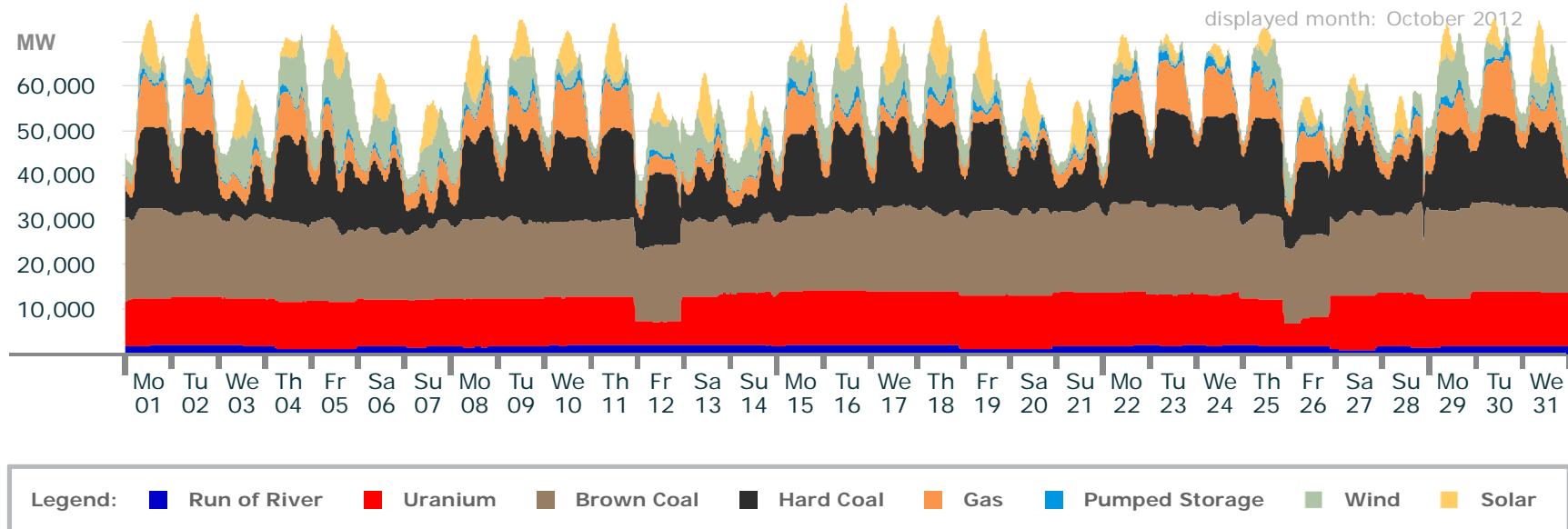


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.4	9.4	13.4	2.5	1.9	0	0.2	0
max. power (GW)	2.7	11.9	19.7	18.0	10.6	3.2	15.6	19.6
monthly energy (TWh)	1.7	8.0	11.1	8.1	3.1	0.51	3.0	2.9

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Detailed Electricity Production: October 2012

Actual production



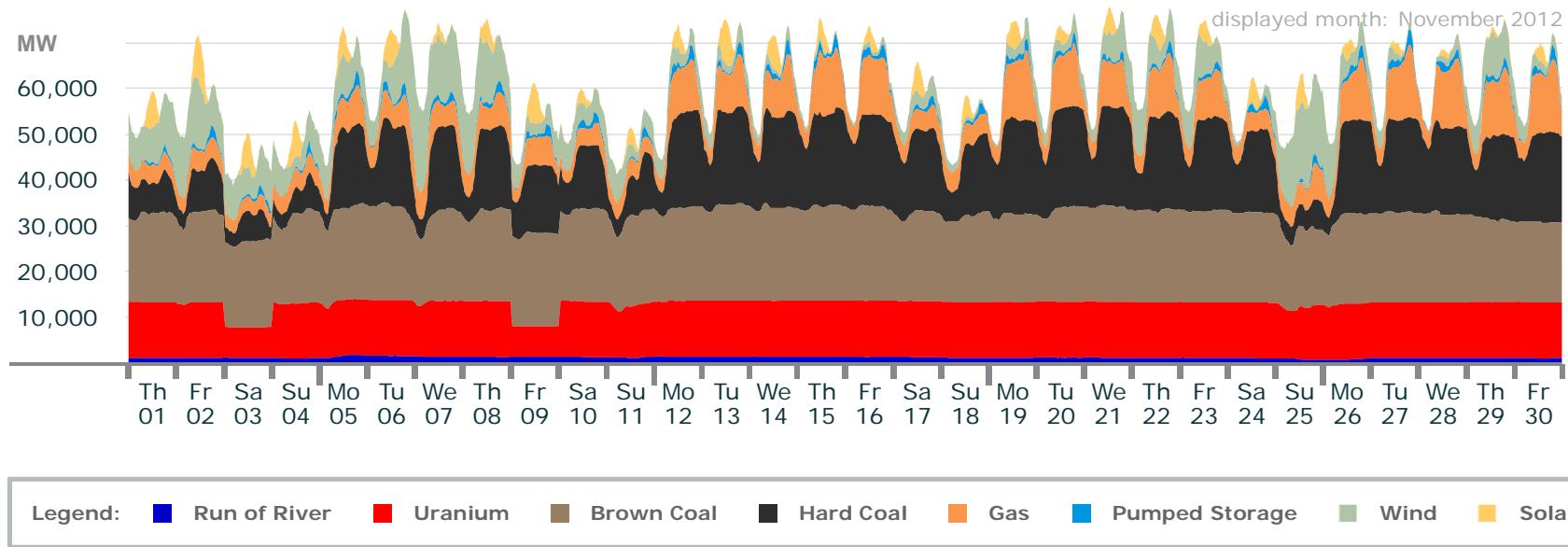
Legend: Run of River (blue), Uranium (red), Brown Coal (brown), Hard Coal (black), Gas (orange), Pumped Storage (light blue), Wind (green), Solar (yellow)

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.0	5.0	11.6	3.5	1.7	0	0.12	0
max. power (GW)	2.2	12.4	20.4	21.7	14.1	4.4	21.1	15.7
monthly energy (TWh)	1.3	8.5	12.3	9.9	3.9	0.57	3.7	1.8

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Detailed Electricity Production: November 2012

Actual production



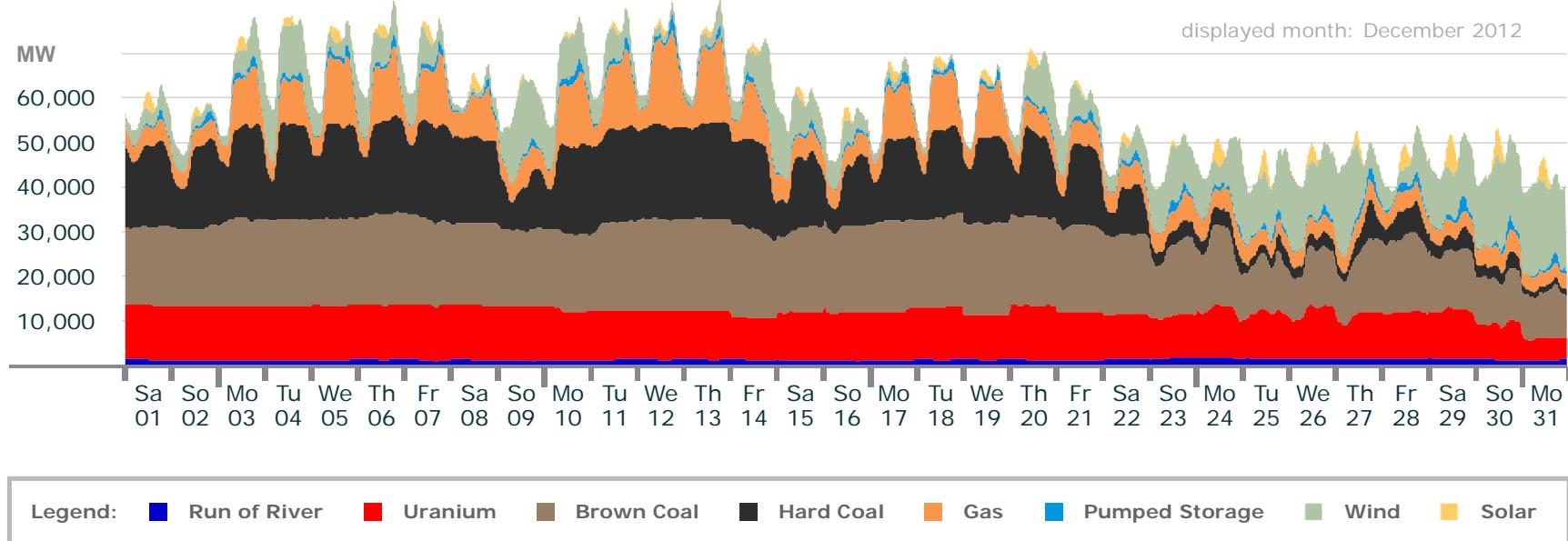
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.2	6.6	14.0	2.6	2.5	0	0.15	0
max. power (GW)	2.2	12.2	21.3	21.8	15.9	3.6	19.7	9.6
monthly energy (TWh)	1.3	8.6	12.9	10.0	4.8	0.57	3.9	0.8

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Detailed Electricity Production: December 2012

Actual production



	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	0.9	4.4	8.9	1.2	3.2	0	0.3	0
max. power (GW)	2.0	12.2	20.7	21.8	22.4	4.0	20.9	8.4
monthly energy (TWh)	1.1	8.0	12.8	9.4	5.0		5.6	0.4

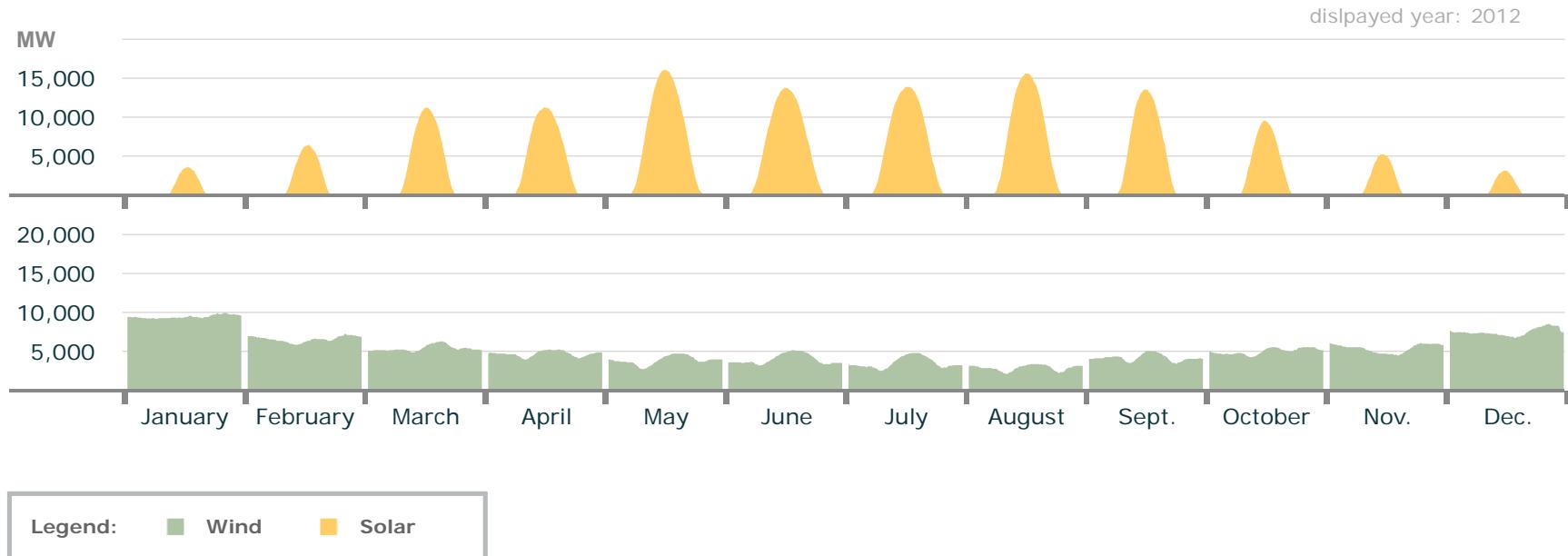
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

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Diurnal courses 2012

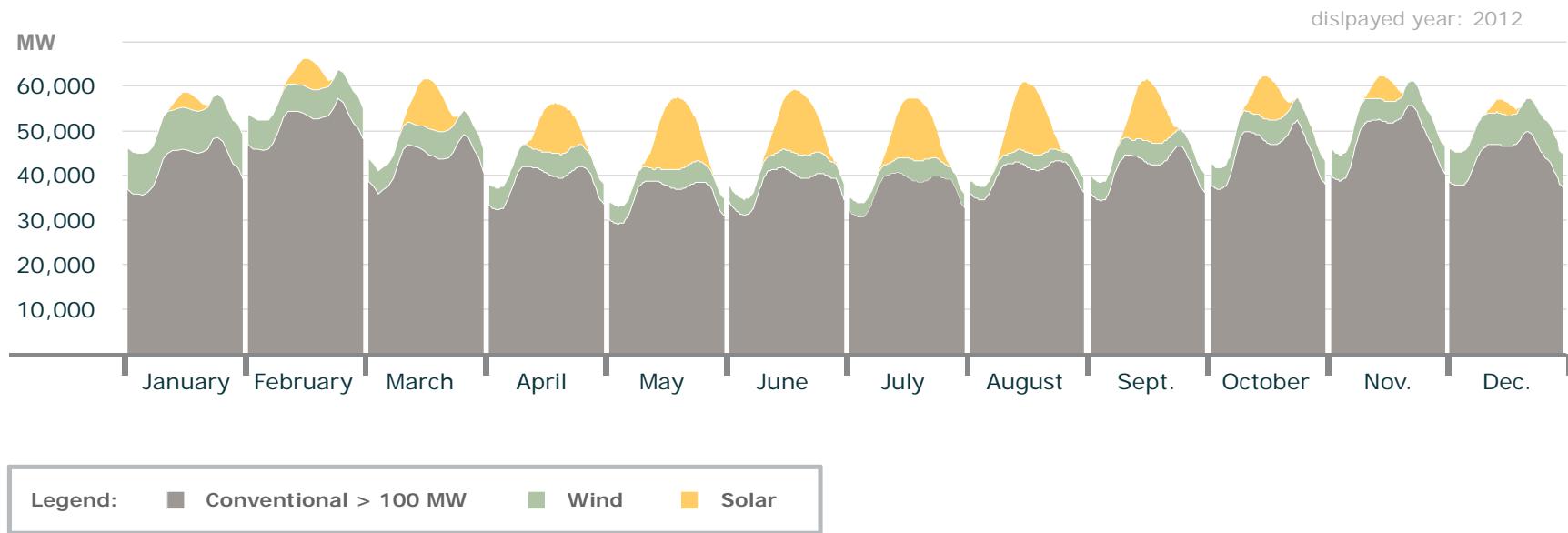
Diurnal courses



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Diurnal courses 2012

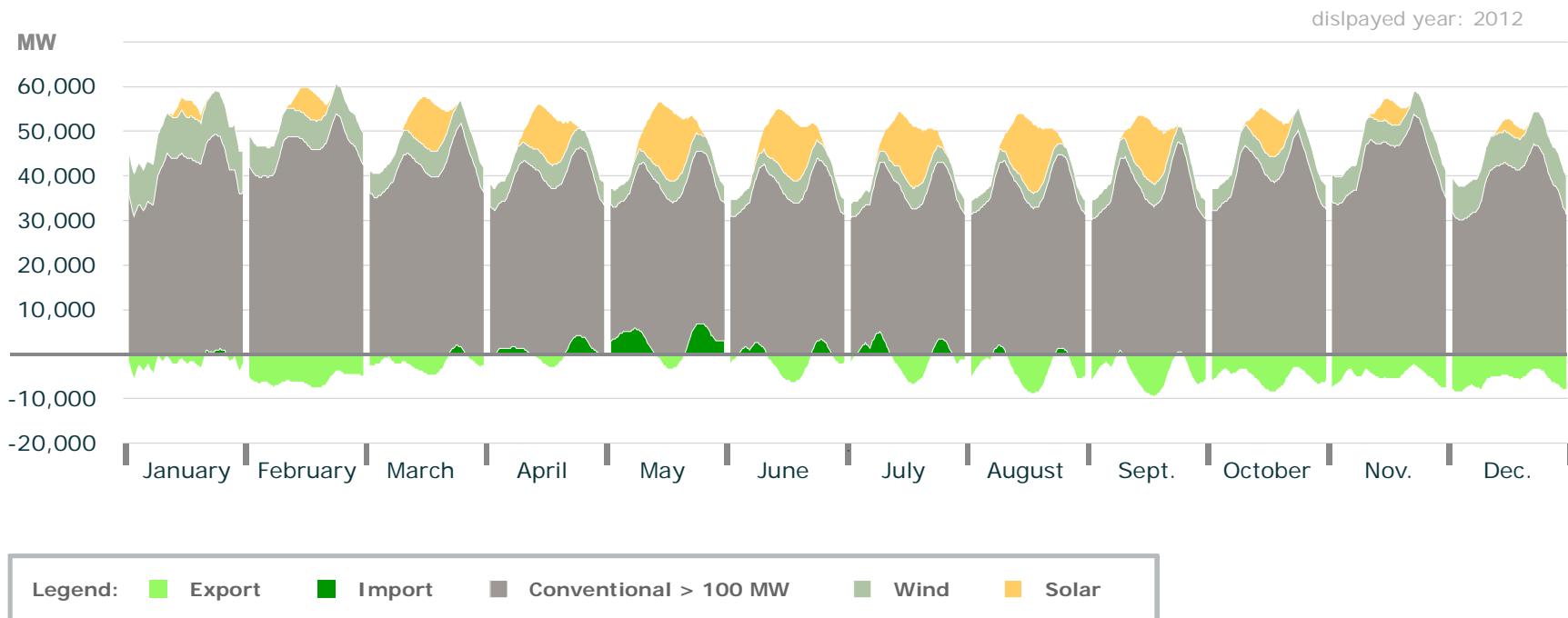
Diurnal courses



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

Diurnal courses 2012 with import and export

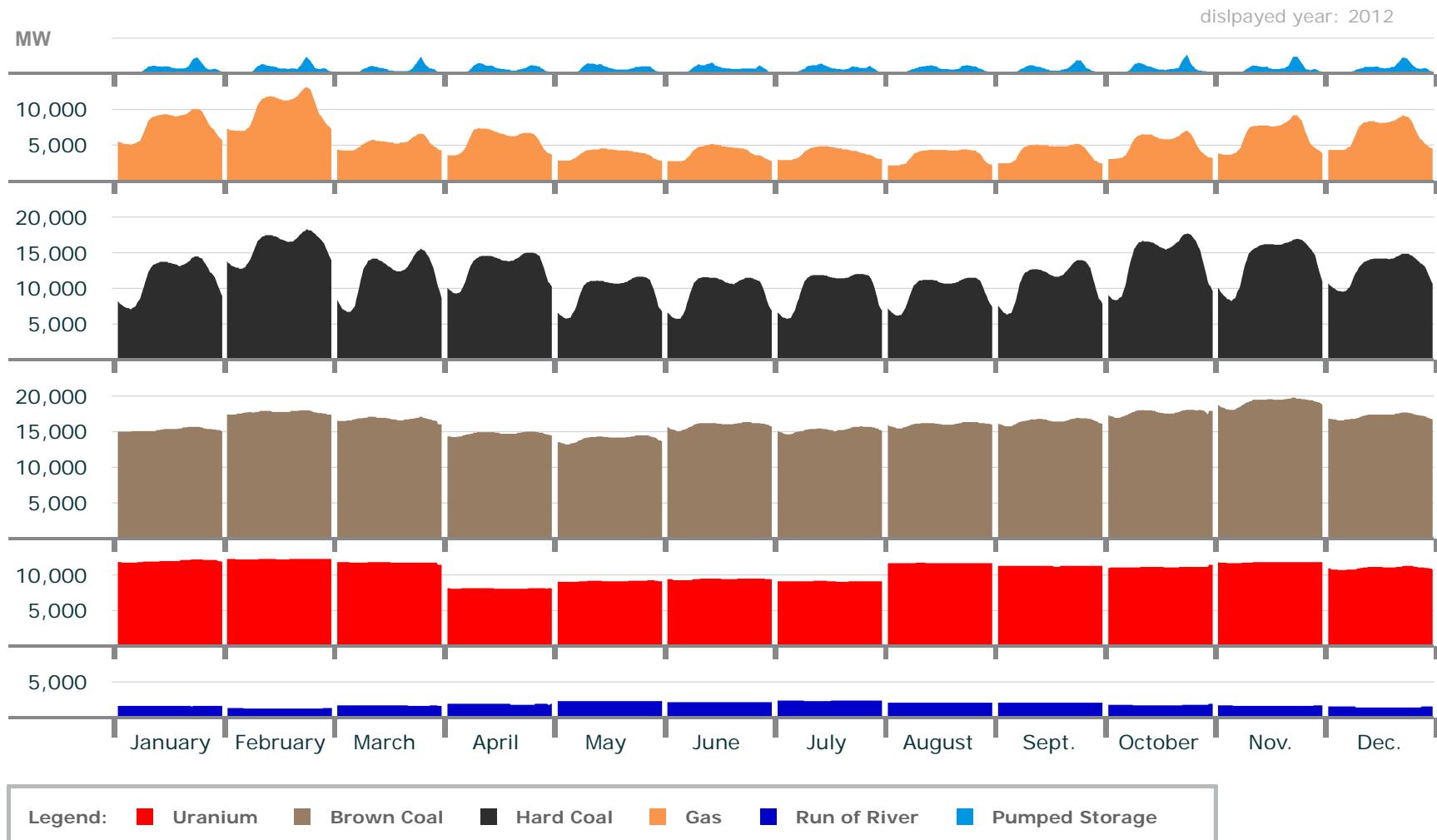
Diurnal courses



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform /

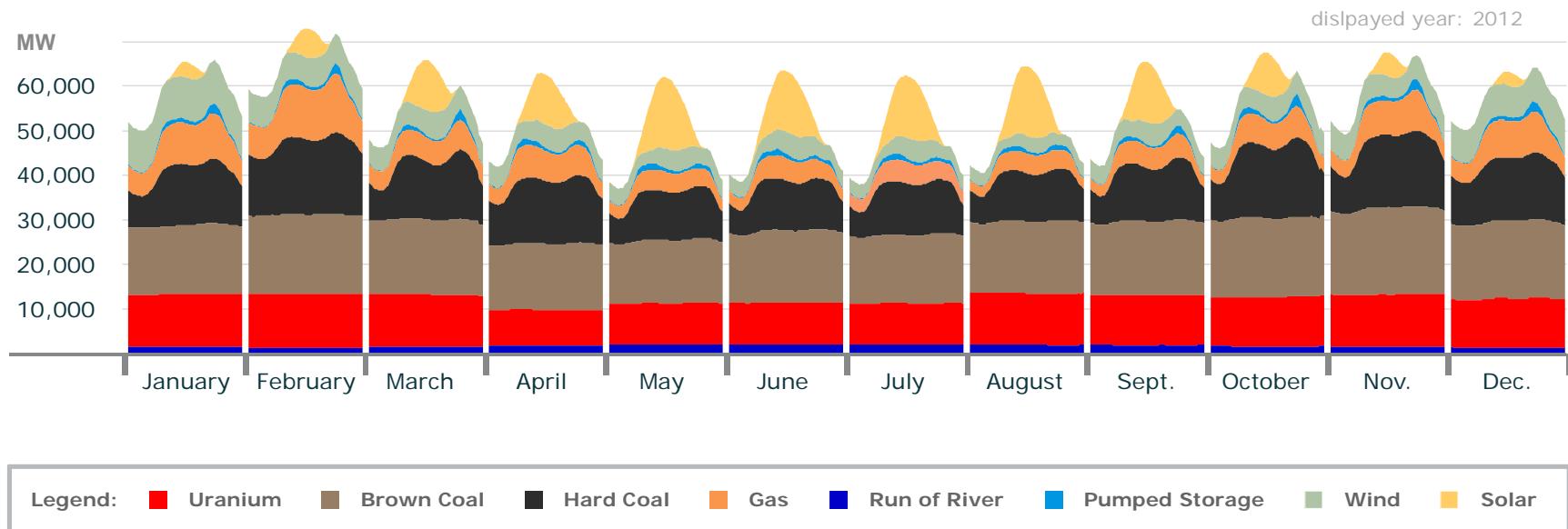
Diurnal courses 2012

Diurnal courses



Diurnal courses 2012

Diurnal courses

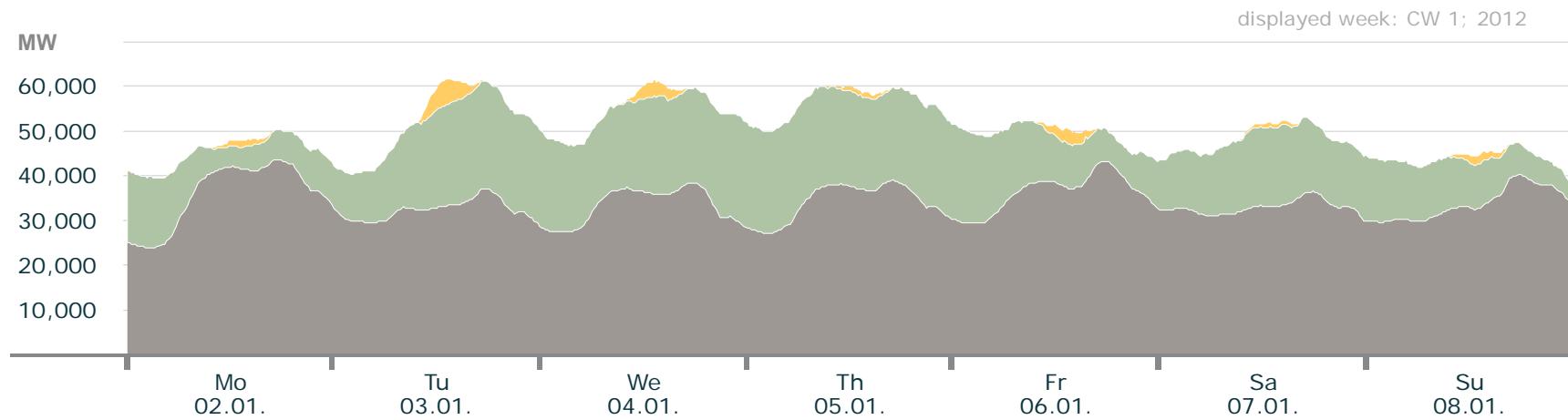


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Electricity Production in Germany: Calendar Week 1

Actual production

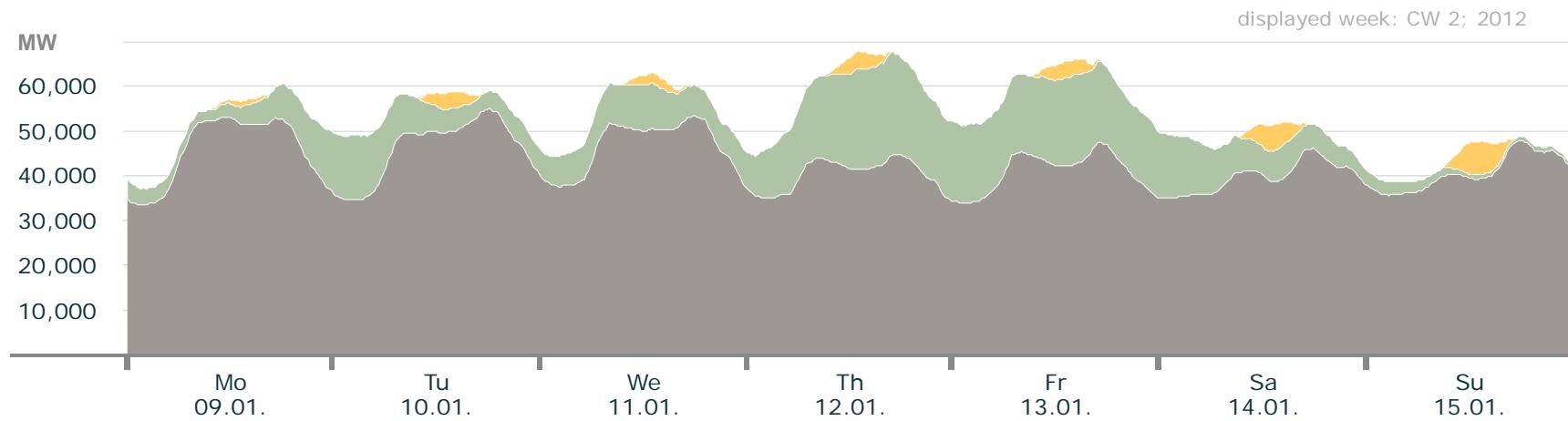


	max. power	date max. power	weekly energy
Solar	5.6 GW	03.01., 11:30 (+1:00)	0.08 TWh
Wind	24.1 GW	03.01., 17:45 (+1:00)	2.6 TWh
Conventional > 100 MW	43.8 GW	02.01., 17:00 (+1:00)	5.8 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 2

Actual production

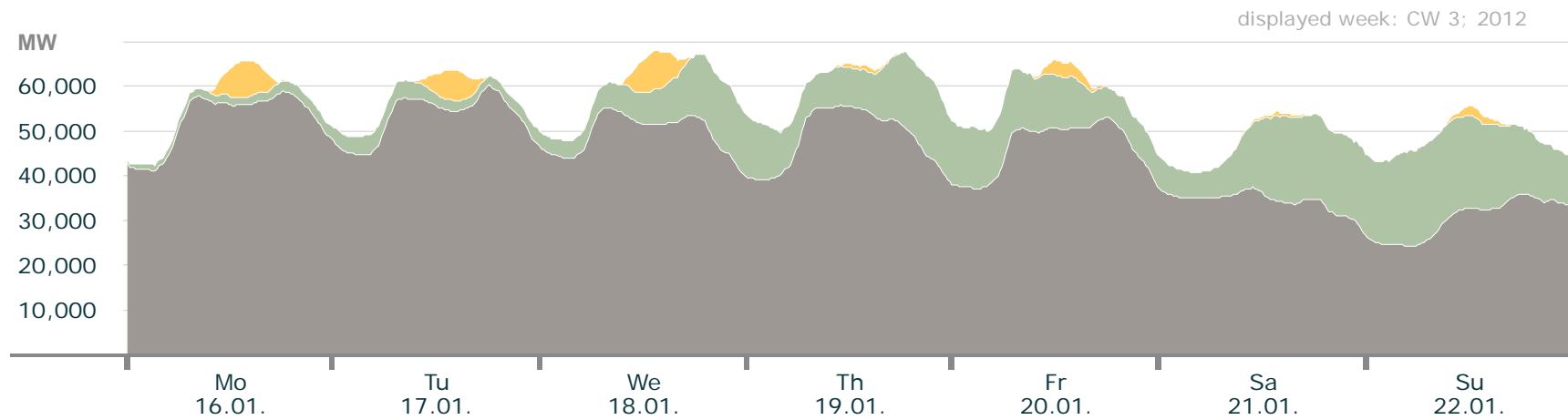


	max. power	date max. power	weekly energy
Solar	7.5 GW	15.01., 12:15 (+1:00)	0.13 TWh
Wind	23.0 GW	12.01., 15:45 (+1:00)	1.6 TWh
Conventional > 100 MW	55.1 GW	10.01., 18:00 (+1:00)	7.2 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 3

Actual production

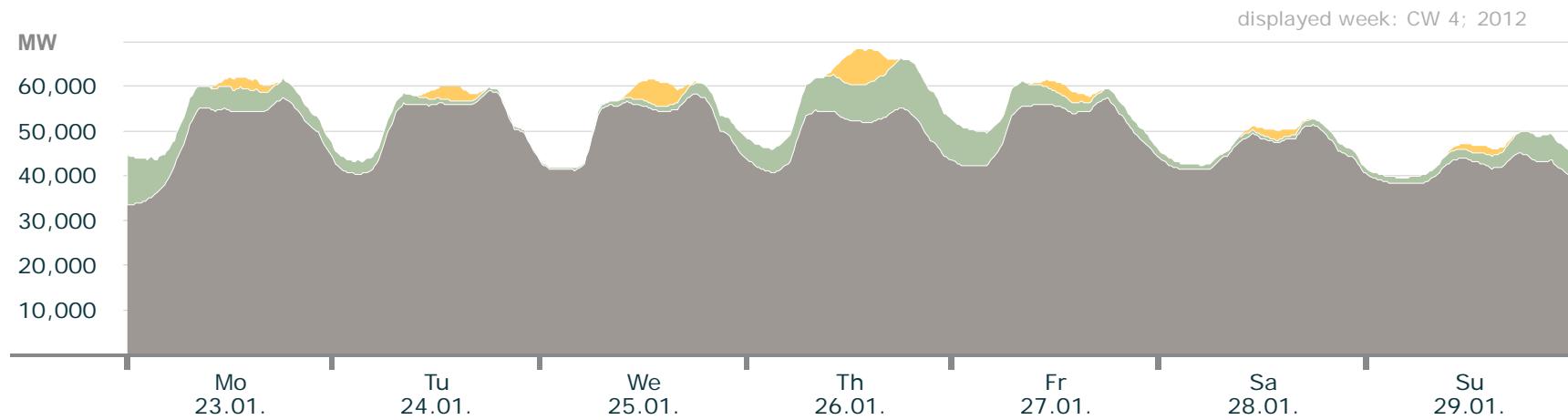


	max. power	date max. power	weekly energy
Solar	8.4 GW	18.01., 12:15 (+1:00)	0.14 TWh
Wind	21.8 GW	22.01., 07:45 (+1:00)	1.6 TWh
Conventional > 100 MW	60.3 GW	17.01., 18:00 (+1:00)	7.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 4

Actual production



	max. power	date max. power	weekly energy
Solar	7.9 GW	26.01., 12:00 (+1:00)	0.12 TWh
Wind	11.7 GW	26.01., 19:30 (+1:00)	0.6 TWh
Conventional > 100 MW	59.2 GW	24.01., 18:00 (+1:00)	8.2 TWh

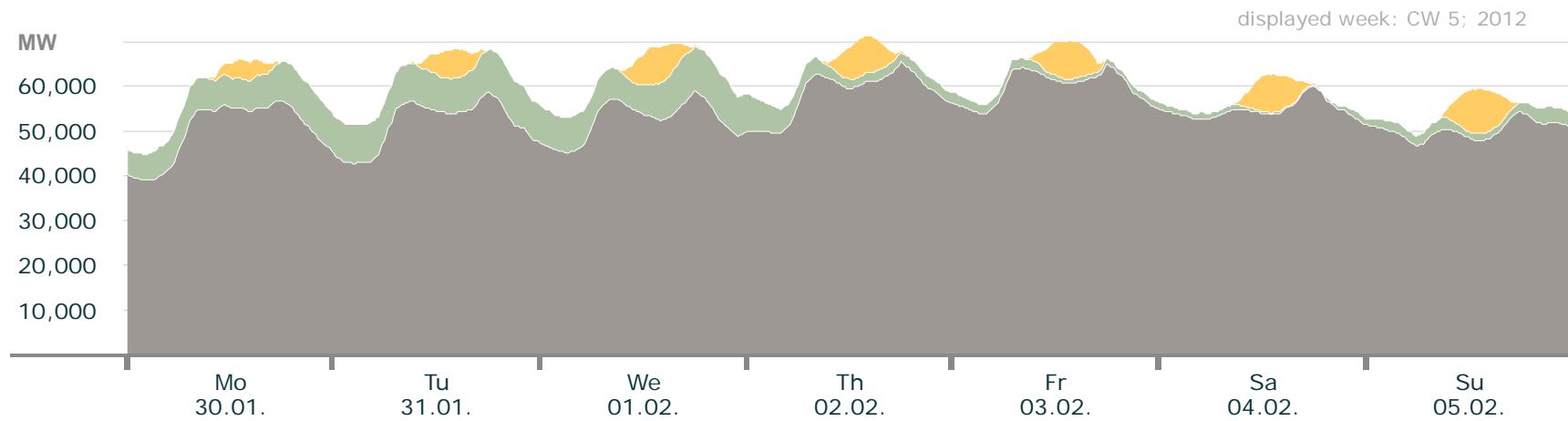
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

100

© Fraunhofer ISE

Electricity Production in Germany: Calendar Week 5

Actual production

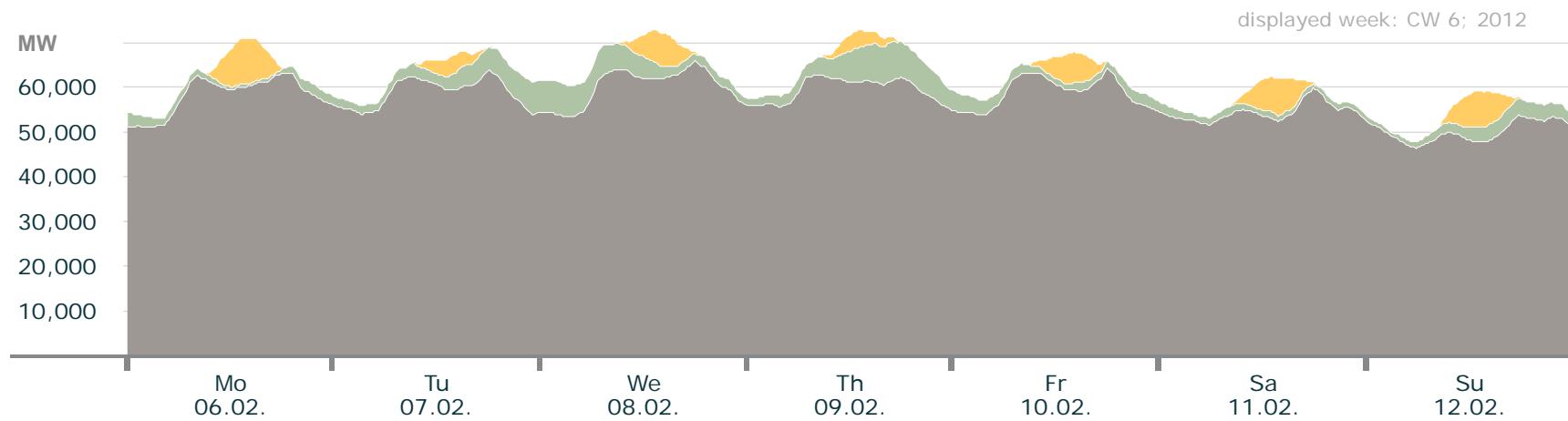


	max. power	date max. power	weekly energy
Solar	10.0 GW	05.02., 12:30 (+1:00)	0.29 TWh
Wind	10.9 GW	01.02., 15:00 (+1:00)	0.78 TWh
Conventional > 100 MW	65.6 GW	02.02., 18:00 (+1:00)	9.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 6

Actual production

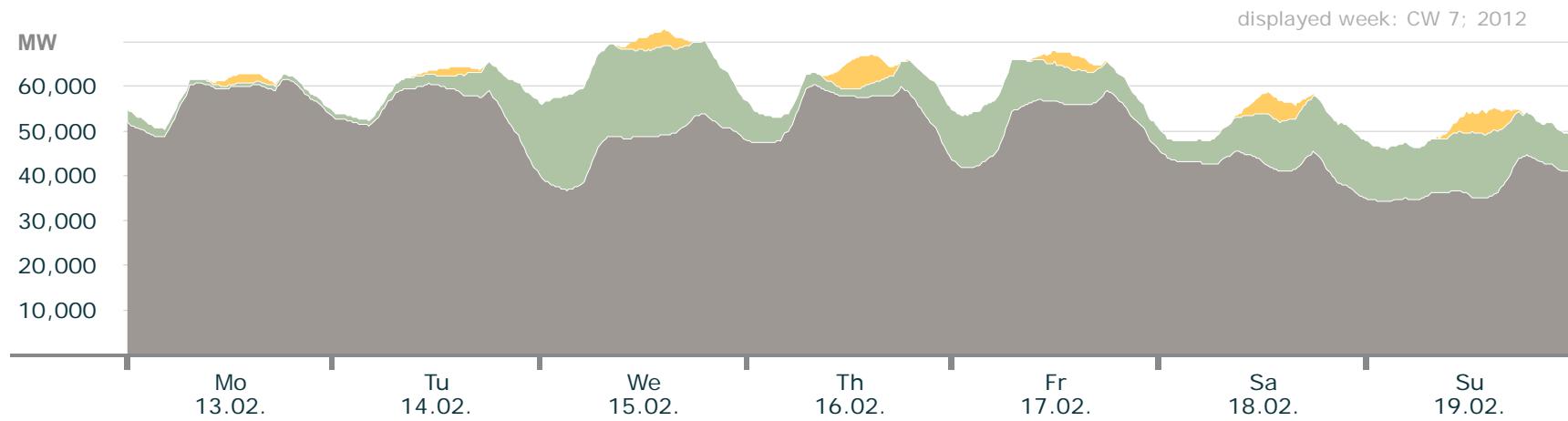


	max. power	date max. power	weekly energy
Solar	10.1 GW	06.02., 12:15 (+1:00)	0.26 TWh
Wind	8.8 GW	09.02., 16:45 (+1:00)	0.51 TWh
Conventional > 100 MW	65.9 GW	08.02., 18:00 (+1:00)	9.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 7

Actual production

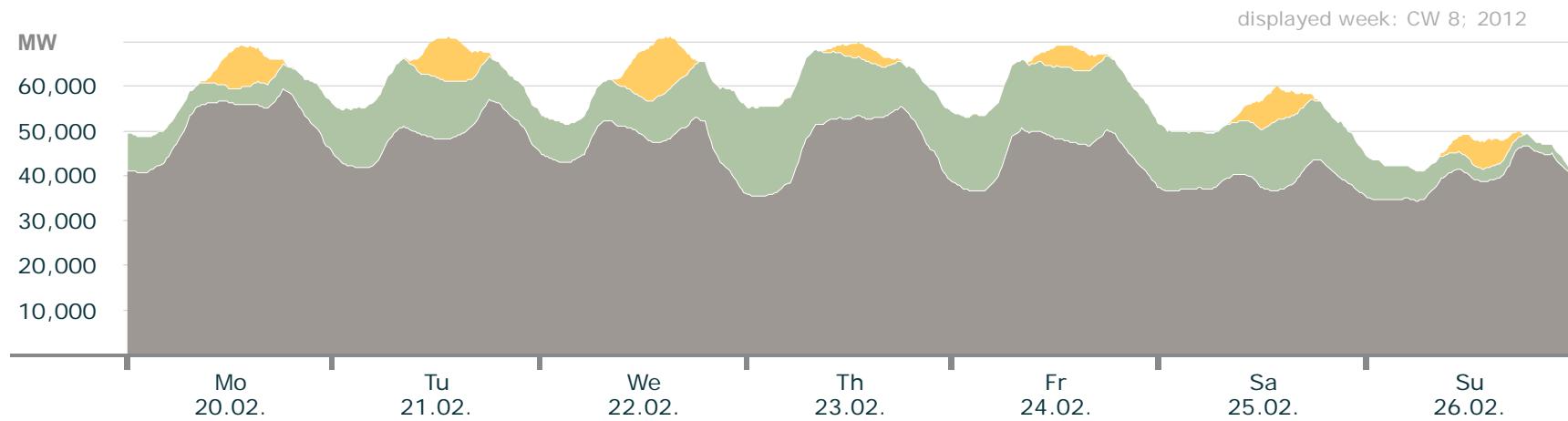


	max. power	date max. power	weekly energy
Solar	7.3 GW	16.02., 12:15 (+1:00)	0.15 TWh
Wind	21.5 GW	15.02., 03:15 (+1:00)	1.4 TWh
Conventional > 100 MW	61.8 GW	13.02., 18:00 (+1:00)	8.3 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 8

Actual production

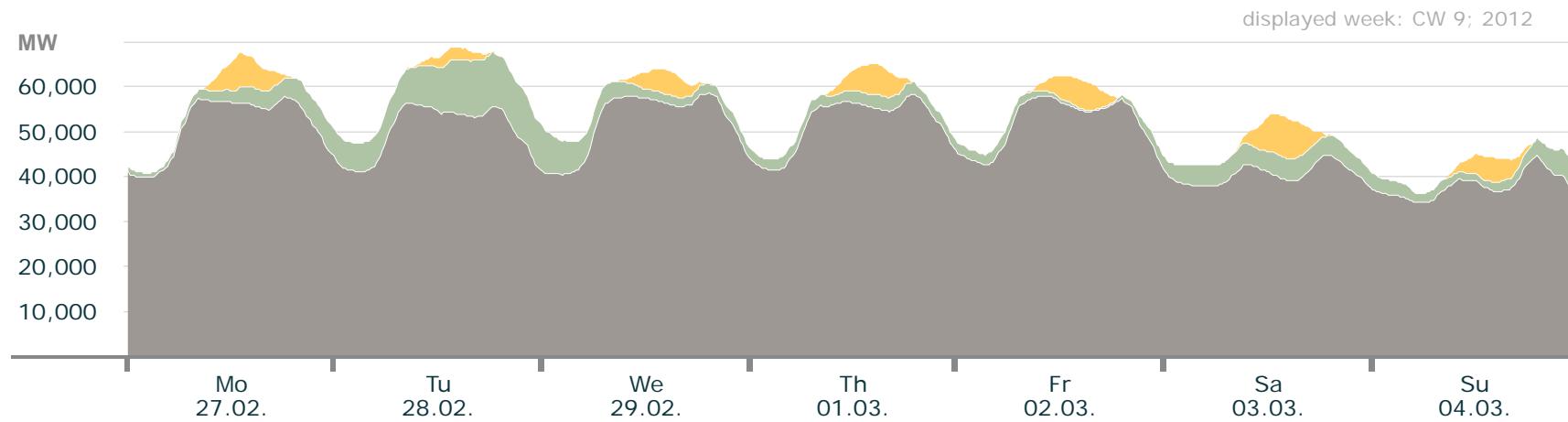


	max. power	date max. power	weekly energy
Solar	12.8 GW	22.02., 12:45 (+1:00)	0.31 TWh
Wind	20.1 GW	23.02., 00:45 (+1:00)	1.9 TWh
Conventional > 100 MW	59.6 GW	20.02., 18:00 (+1:00)	7.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 9

Actual production

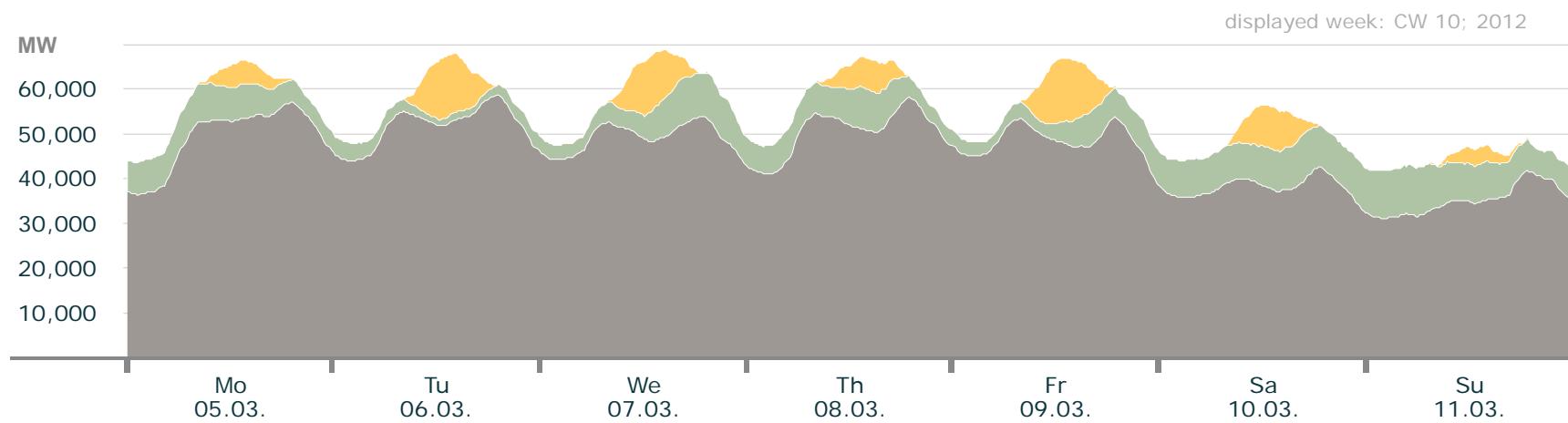


	max. power	date max. power	weekly energy
Solar	9.2 GW	03.03., 12:45 (+1:00)	0.26 TWh
Wind	12.5 GW	28.02., 16:15 (+1:00)	0.68 TWh
Conventional > 100 MW	58.7 GW	29.02., 19:00 (+1:00)	8.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 10

Actual production

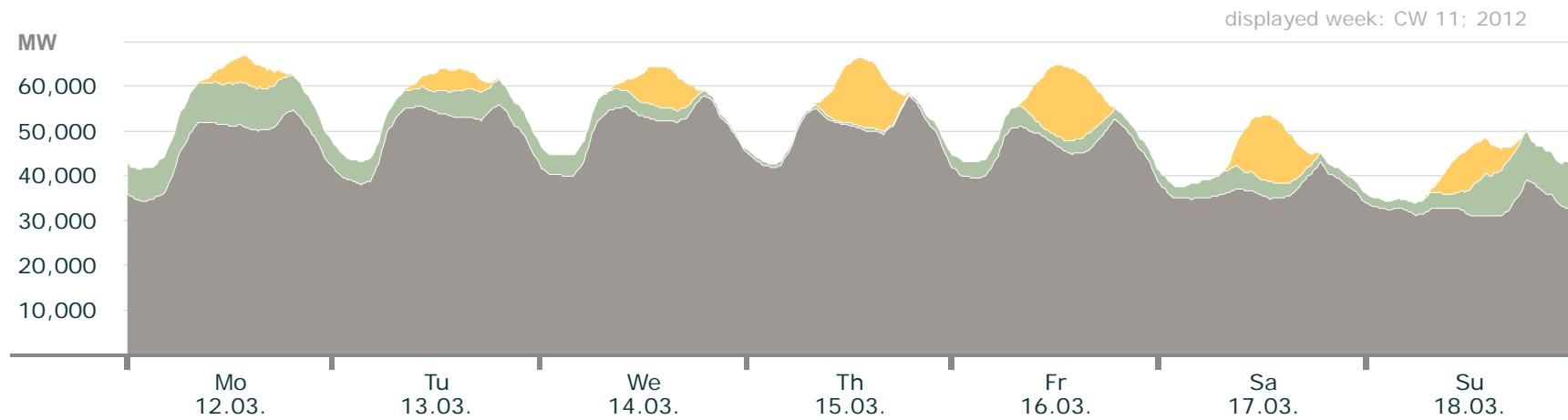


	max. power	date max. power	weekly energy
Solar	14.1 GW	09.03., 11:45 (+1:00)	0.41 TWh
Wind	11.0 GW	11.03., 05:30 (+1:00)	1.1 TWh
Conventional > 100 MW	58.9 GW	06.03., 19:00 (+1:00)	7.8 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 11

Actual production

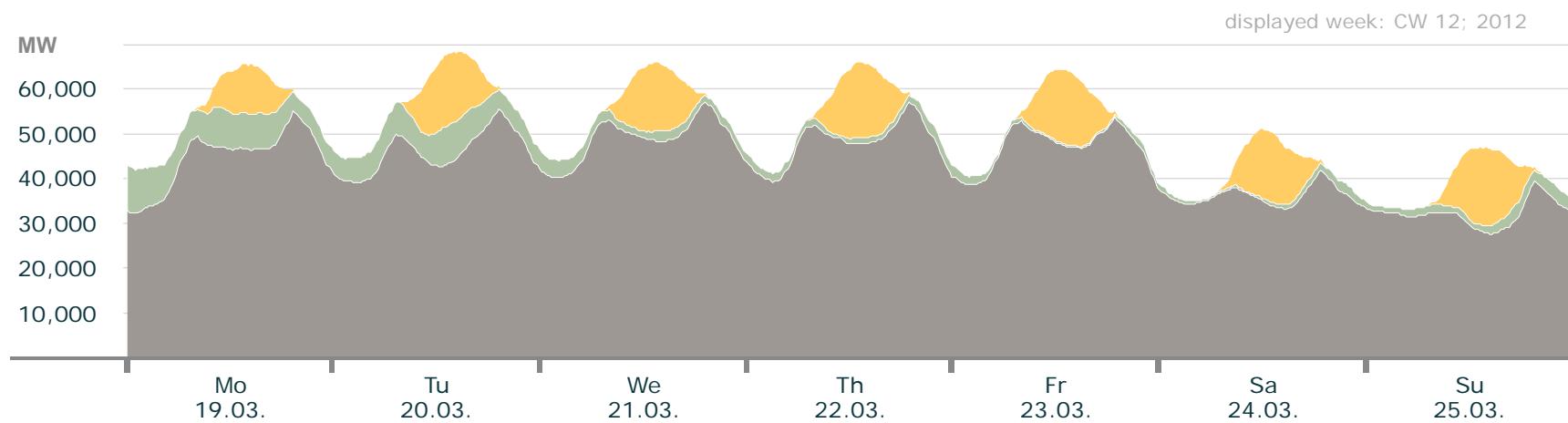


	max. power	date max. power	weekly energy
Solar	16.4 GW	16.03., 12:00 (+1:00)	0.49 TWh
Wind	11.4 GW	18.03., 18:45 (+1:00)	0.71 TWh
Conventional > 100 MW	58.0 GW	15.03., 19:00 (+1:00)	7.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 12

Actual production

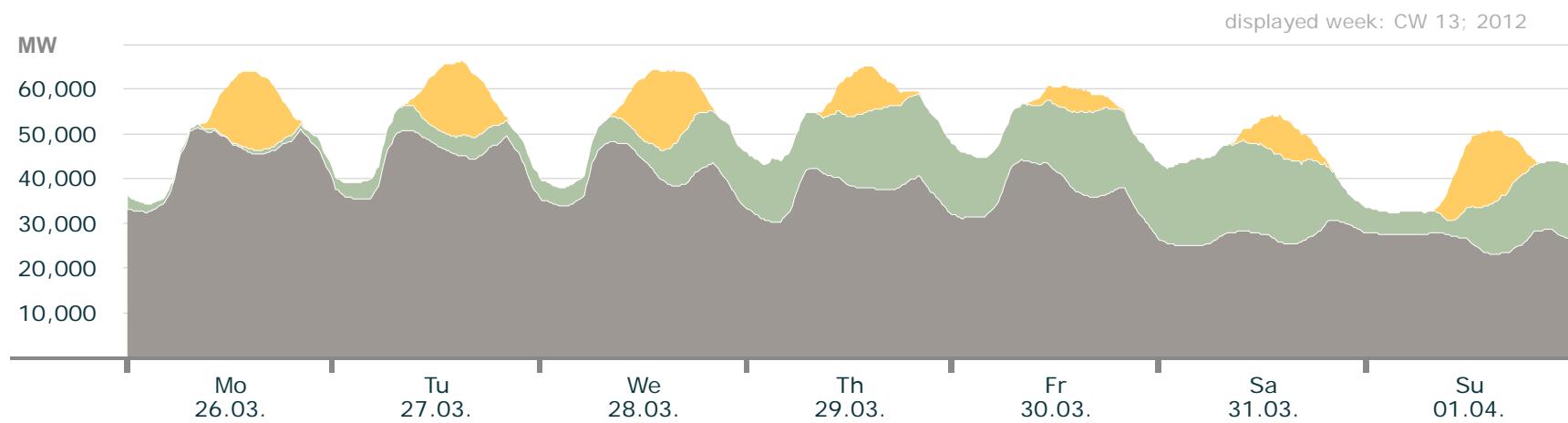


	max. power	date max. power	weekly energy
Solar	17.4 GW	25.03., 13:15 (+2:00)	0.75 TWh
Wind	9.8 GW	19.03., 00:00 (+1:00)	0.5 TWh
Conventional > 100 MW	57.3 GW	22.03., 19:00 (+1:00)	7.3 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 13

Actual production

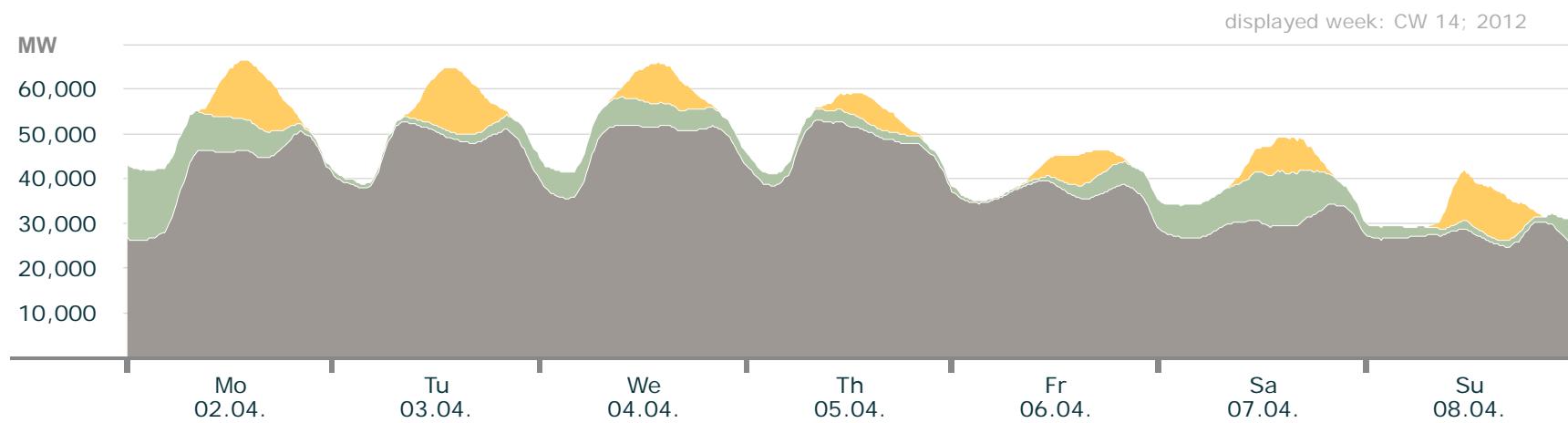


	max. power	date max. power	weekly energy
Solar	17.5 GW	28.03., 13:15 (+2:00)	0.65 TWh
Wind	20.3 GW	31.03., 10:00 (+2:00)	1.7 TWh
Conventional > 100 MW	51.6 GW	26.03., 08:00 (+2:00)	6.2 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 14

Actual production

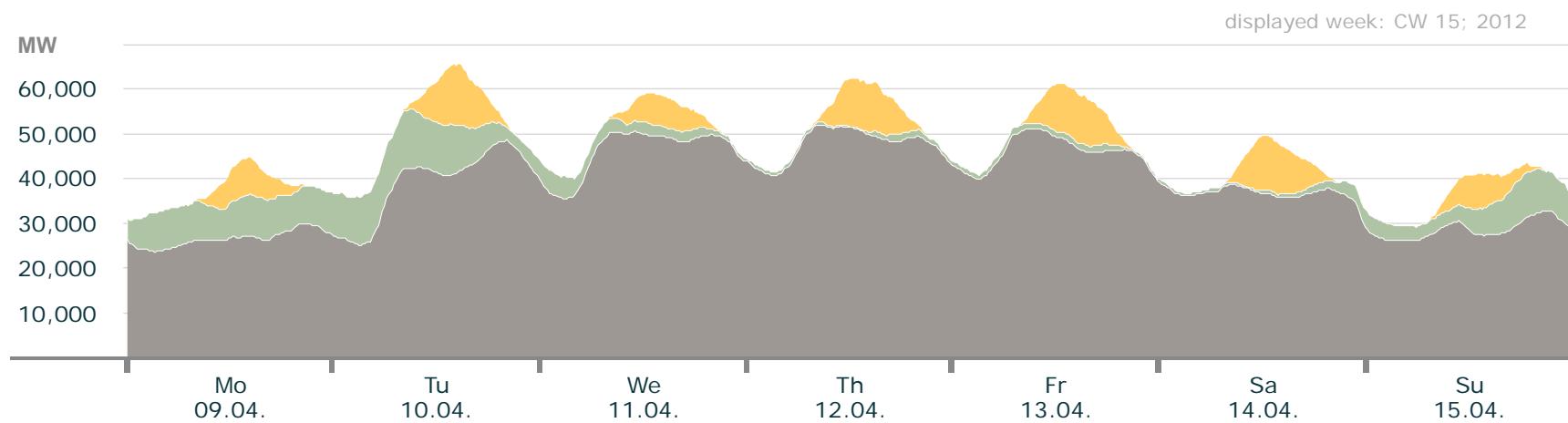


	max. power	date max. power	weekly energy
Solar	14.6 GW	03.04., 12:45 (+2:00)	0.5 TWh
Wind	16.2 GW	02.04., 00:00 (+2:00)	0.71 TWh
Conventional > 100 MW	53.2 GW	05.04., 08:00 (+2:00)	6.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 15

Actual production

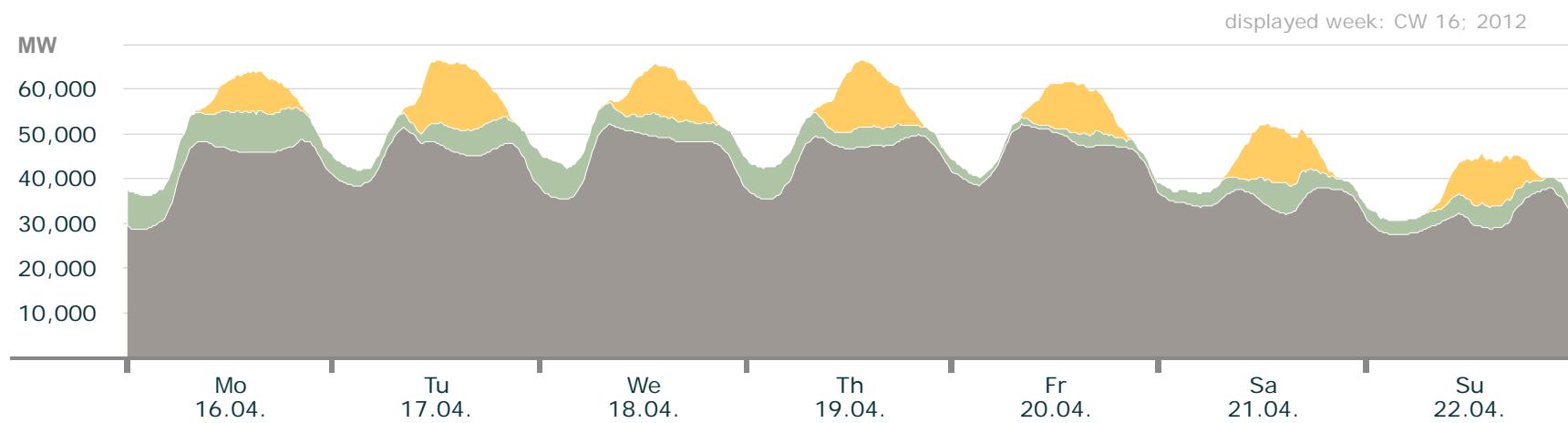


	max. power	date max. power	weekly energy
Solar	13.6 GW	10.04., 13:15 (+2:00)	0.52 TWh
Wind	13.0 GW	10.04., 08:45 (+2:00)	0.69 TWh
Conventional > 100 MW	52.1 GW	12.04., 09:00 (+2:00)	6.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 16

Actual production

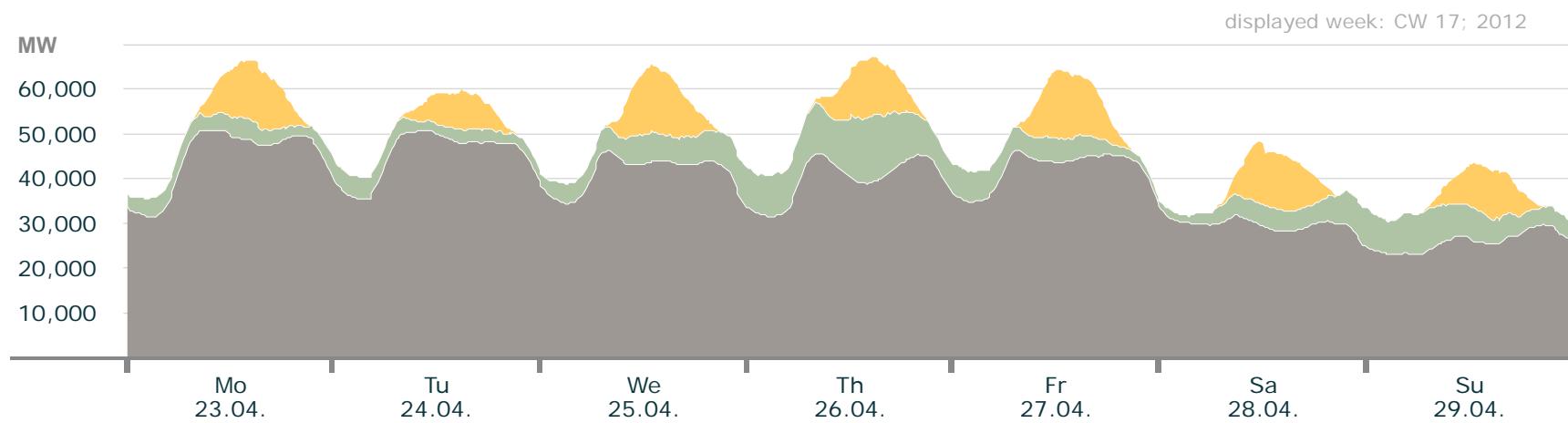


	max. power	date max. power	weekly energy
Solar	14.9 GW	17.04., 13:45 (+2:00)	0.67 TWh
Wind	9.2 GW	16.04., 14:30 (+2:00)	0.73 TWh
Conventional > 100 MW	52.4 GW	18.04., 08:00 (+2:00)	7.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 17

Actual production

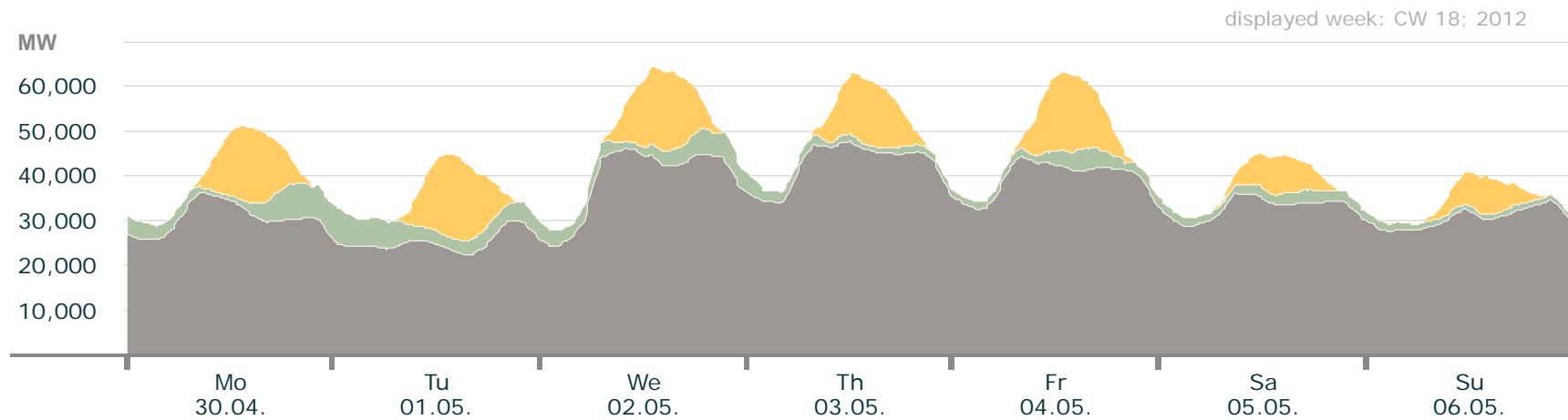


	max. power	date max. power	weekly energy
Solar	15.6 GW	27.04., 11:30 (+2:00)	0.7 TWh
Wind	14.9 GW	26.04., 15:00 (+2:00)	0.93 TWh
Conventional > 100 MW	50.9 GW	24.04., 11:00 (+2:00)	6.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 18

Actual production

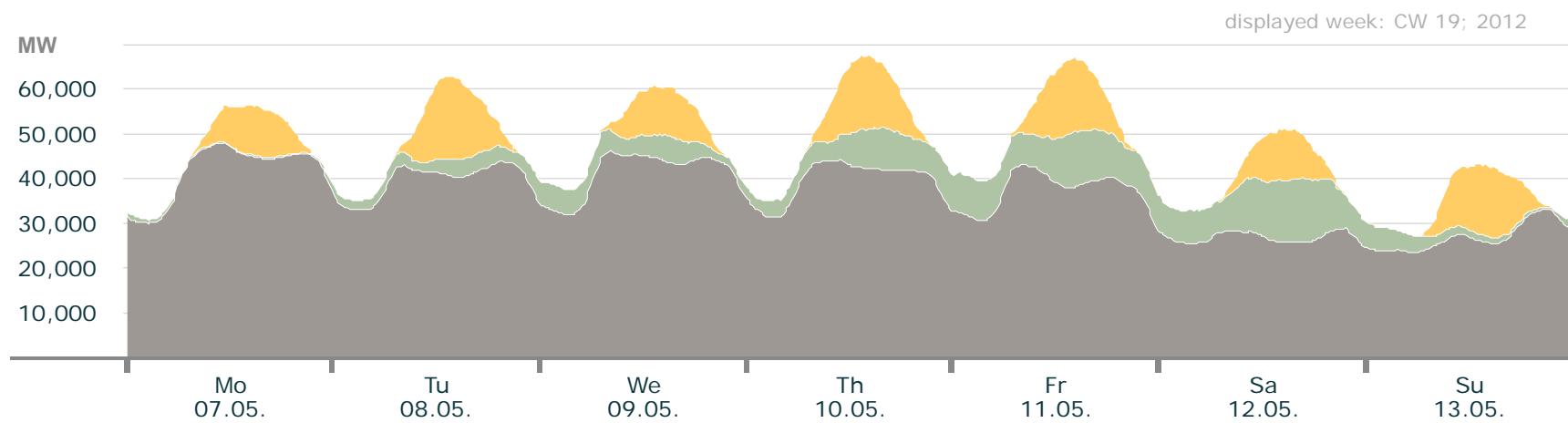


	max. power	date max. power	weekly energy
Solar	18.8 GW	01.05., 12:30 (+2:00)	0.82 TWh
Wind	8.1 GW	30.04., 19:30 (+2:00)	0.48 TWh
Conventional > 100 MW	47.9 GW	03.05., 12:00 (+2:00)	5.8 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 19

Actual production

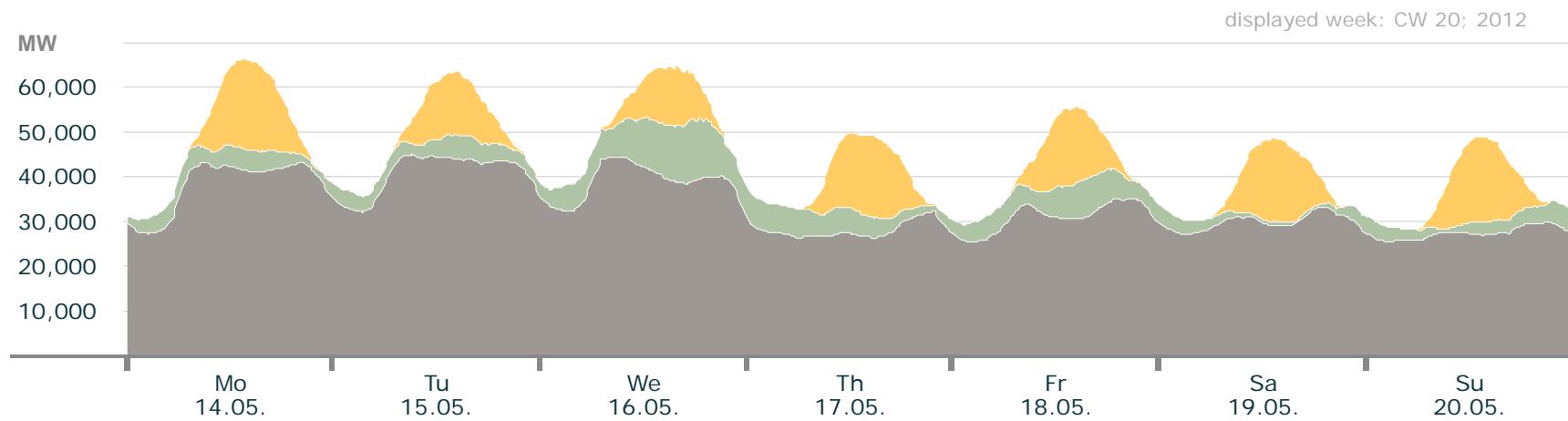


	max. power	date max. power	weekly energy
Solar	18.5 GW	08.05., 12:15 (+2:00)	0.83 TWh
Wind	14.1 GW	12.05., 17:00 (+2:00)	0.86 TWh
Conventional > 100 MW	48.3 GW	07.05., 11:00 (+2:00)	6.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 20

Actual production

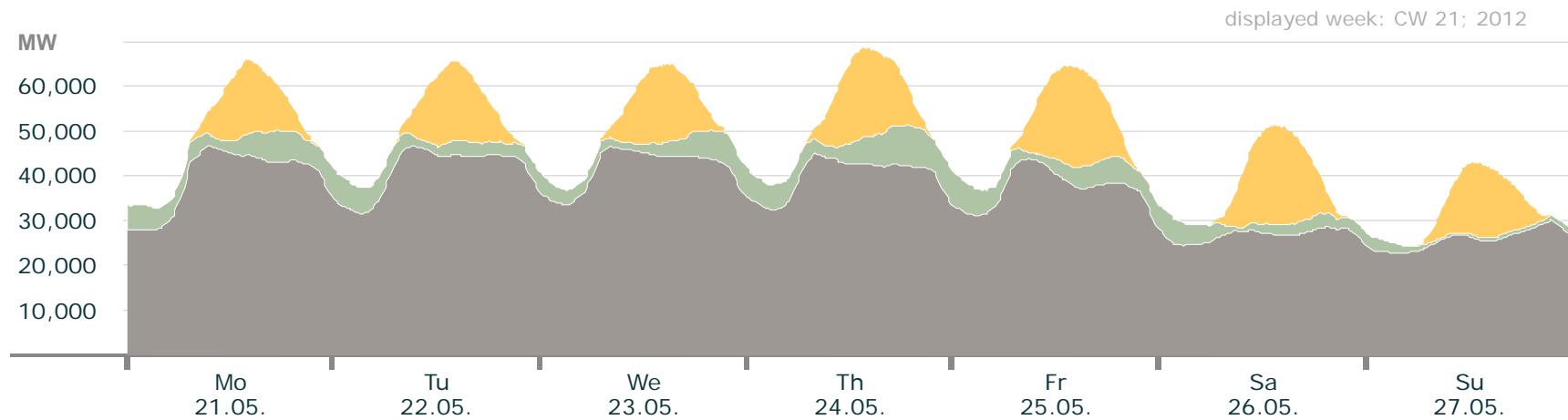


	max. power	date max. power	weekly energy
Solar	19.9 GW	14.05., 12:45 (+2:00)	0.99 TWh
Wind	14.0 GW	16.05., 17:45 (+2:00)	0.75 TWh
Conventional > 100 MW	45.0 GW	15.05., 09:00 (+2:00)	5.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 21

Actual production

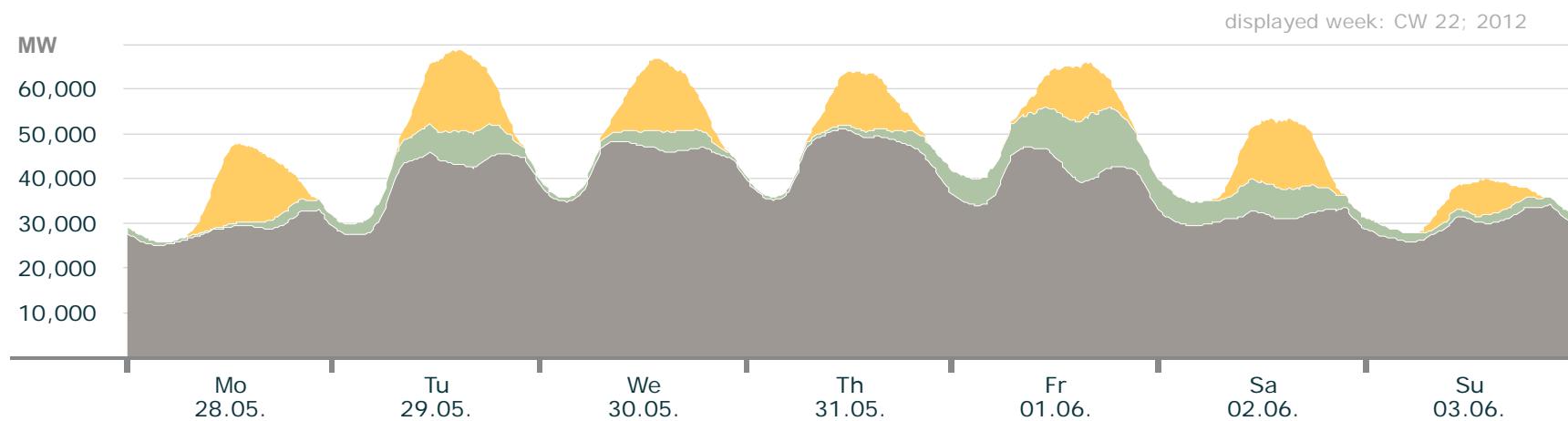


	max. power	date max. power	weekly energy
Solar	22.4 GW	25.05., 12:45 (+2:00)	1.1 TWh
Wind	9.1 GW	24.05., 18:45 (+2:00)	0.66 TWh
Conventional > 100 MW	47.0 GW	21.05., 09:00 (+2:00)	6.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 22

Actual production

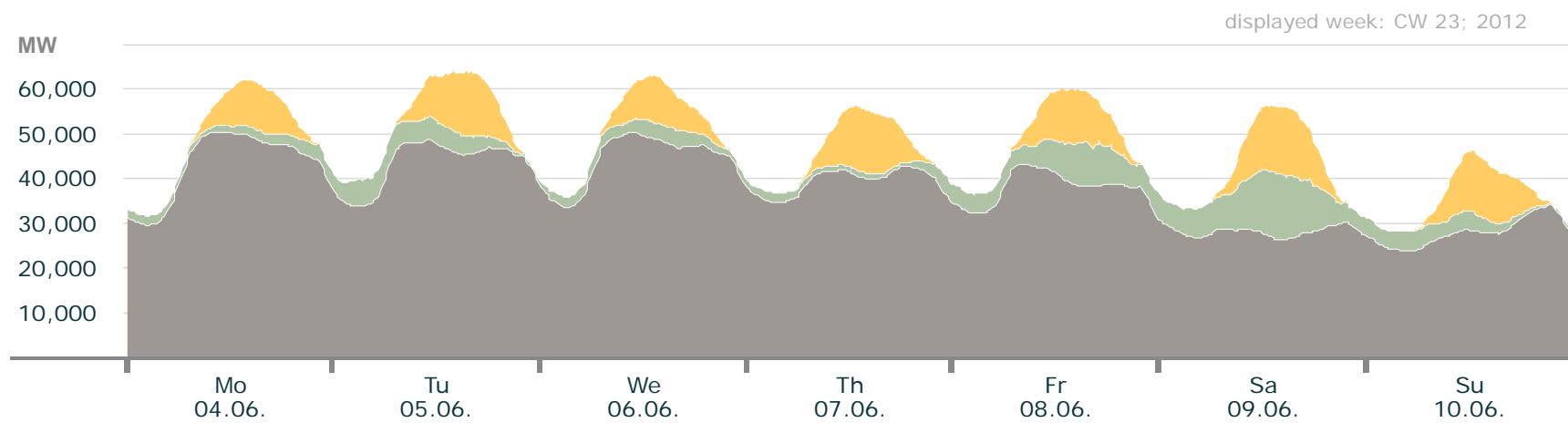


	max. power	date max. power	weekly energy
Solar	18.3 GW	29.05., 13:15 (+2:00)	0.85 TWh
Wind	14.8 GW	01.06., 16:15 (+2:00)	0.65 TWh
Conventional > 100 MW	51.2 GW	31.05., 11:00 (+2:00)	6.2 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 23

Actual production

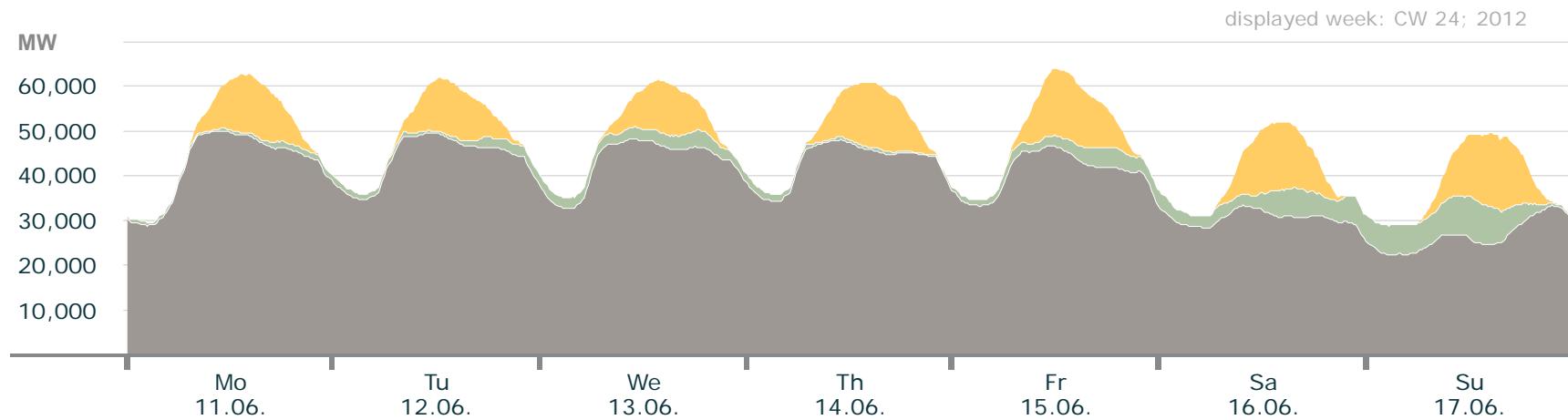


	max. power	date max. power	weekly energy
Solar	14.8 GW	09.06., 14:00 (+2:00)	0.76 TWh
Wind	15.1 GW	09.06., 14:00 (+2:00)	0.67 TWh
Conventional > 100 MW	50.5 GW	04.06., 11:00 (+2:00)	6.4 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 24

Actual production

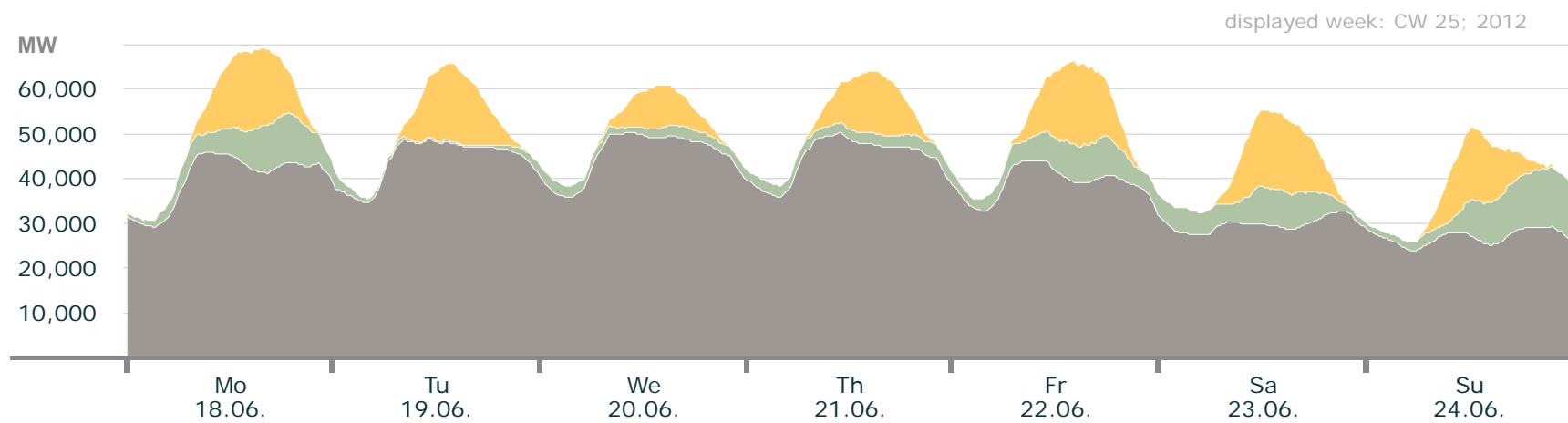


	max. power	date max. power	weekly energy
Solar	16.7 GW	17.06., 15:15 (+2:00)	0.86 TWh
Wind	9.4 GW	17.06., 12:30 (+2:00)	0.44 TWh
Conventional > 100 MW	50.2 GW	11.06., 11:00 (+2:00)	6.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 25

Actual production

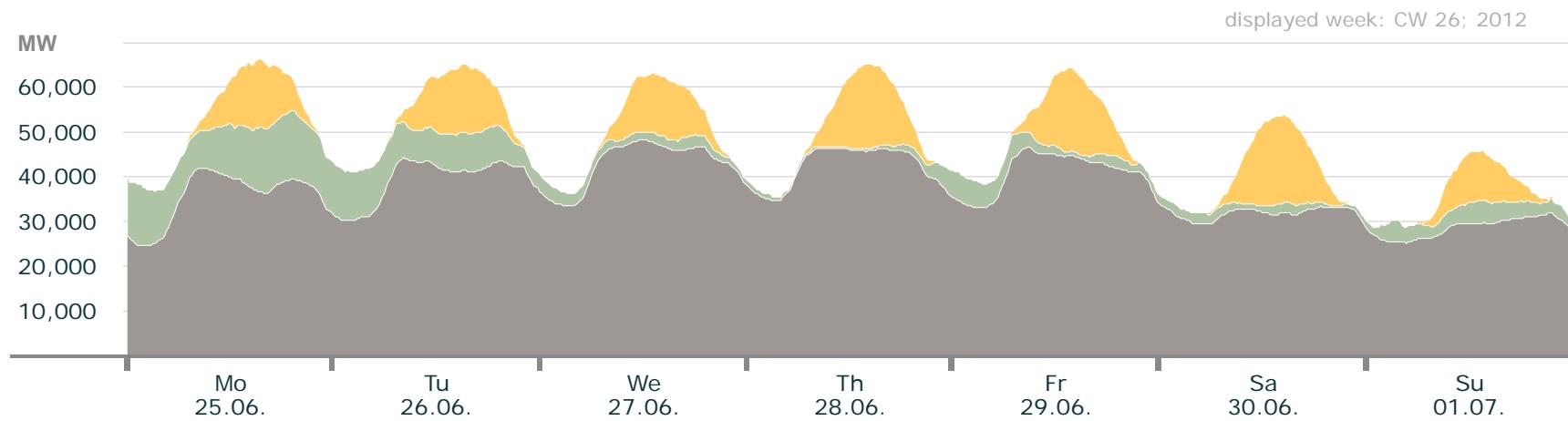


	max. power	date max. power	weekly energy
Solar	18.4 GW	22.06., 13:15 (+2:00)	0.93 TWh
Wind	13.5 GW	24.06., 21:45 (+2:00)	0.71 TWh
Conventional > 100 MW	50.4 GW	21.06., 11:00 (+2:00)	6.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 26

Actual production

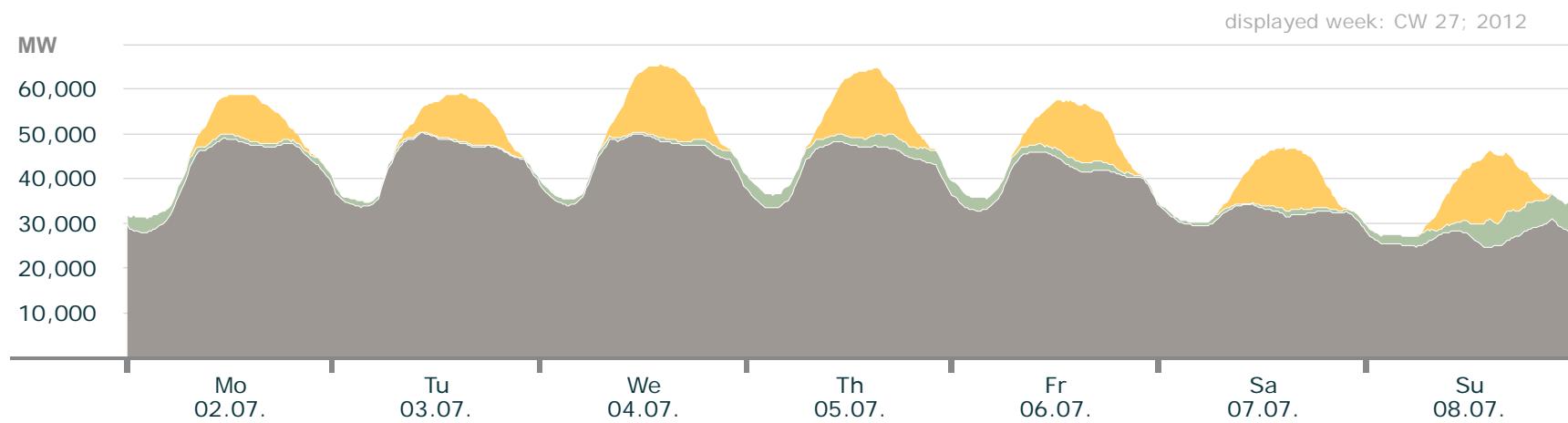


	max. power	date max. power	weekly energy
Solar	19.7 GW	30.06., 13:00 (+2:00)	0.93 TWh
Wind	15.3 GW	25.06., 18:45 (+2:00)	0.76 TWh
Conventional > 100 MW	48.3 GW	27.06., 12:00 (+2:00)	6.3 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 27

Actual production

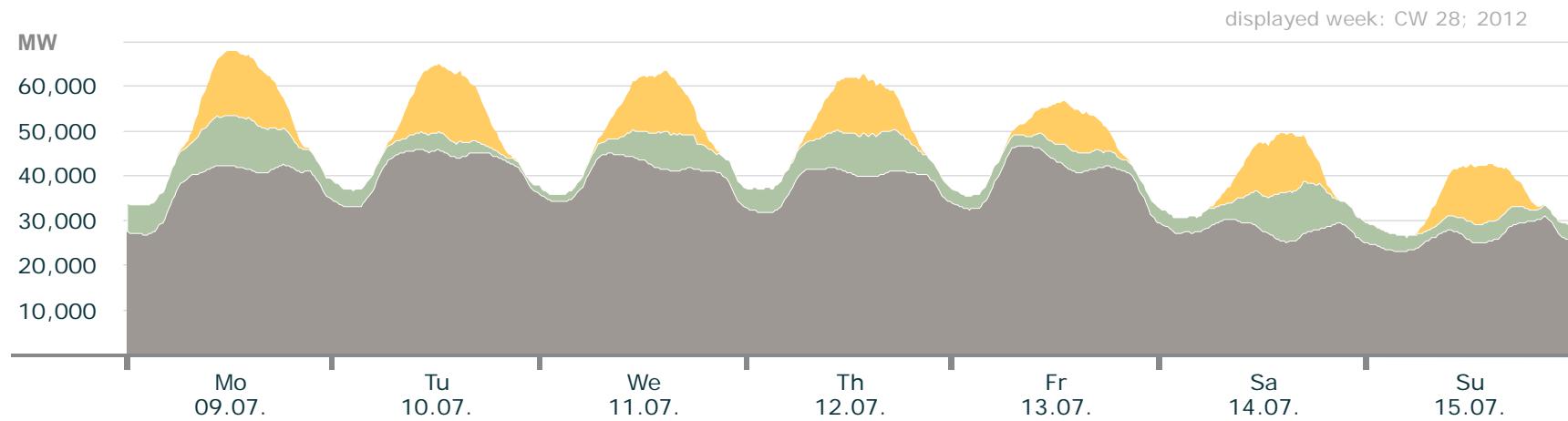


	max. power	date max. power	weekly energy
Solar	16.4 GW	04.07., 13:00 (+2:00)	0.81 TWh
Wind	6.6 GW	08.07., 16:30 (+2:00)	0.29 TWh
Conventional > 100 MW	50.3 GW	03.07., 10:00 (+2:00)	6.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 28

Actual production

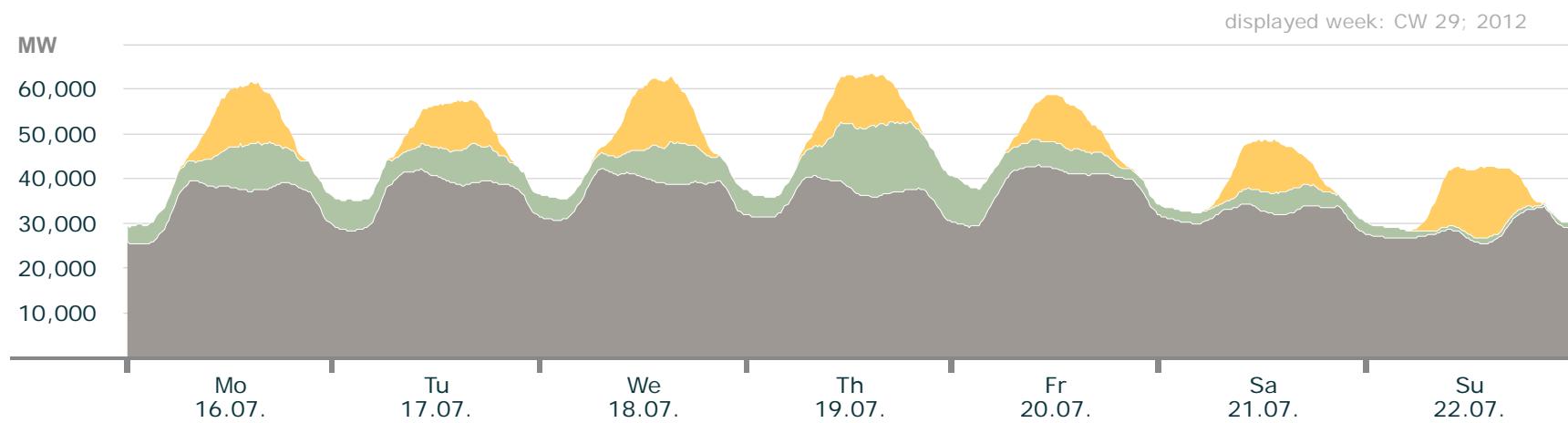


	max. power	date max. power	weekly energy
Solar	15.7 GW	10.07., 14:00 (+2:00)	0.81 TWh
Wind	11.6 GW	14.07., 18:00 (+2:00)	0.85 TWh
Conventional > 100 MW	46.9 GW	13.07., 9:00 (+2:00)	6.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 29

Actual production

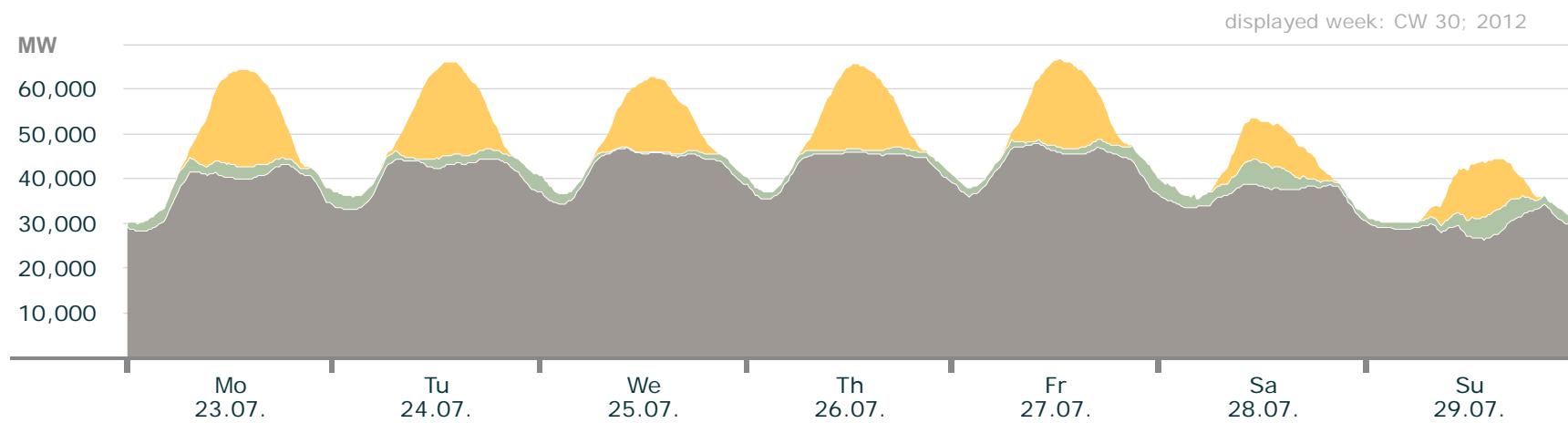


	max. power	date max. power	weekly energy
Solar	16.0 GW	22.07., 13:45 (+2:00)	0.77 TWh
Wind	16.2 GW	19.07., 16:30 (+2:00)	0.94 TWh
Conventional > 100 MW	43.0 GW	20.07., 11:00 (+2:00)	5.9 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 30

Actual production

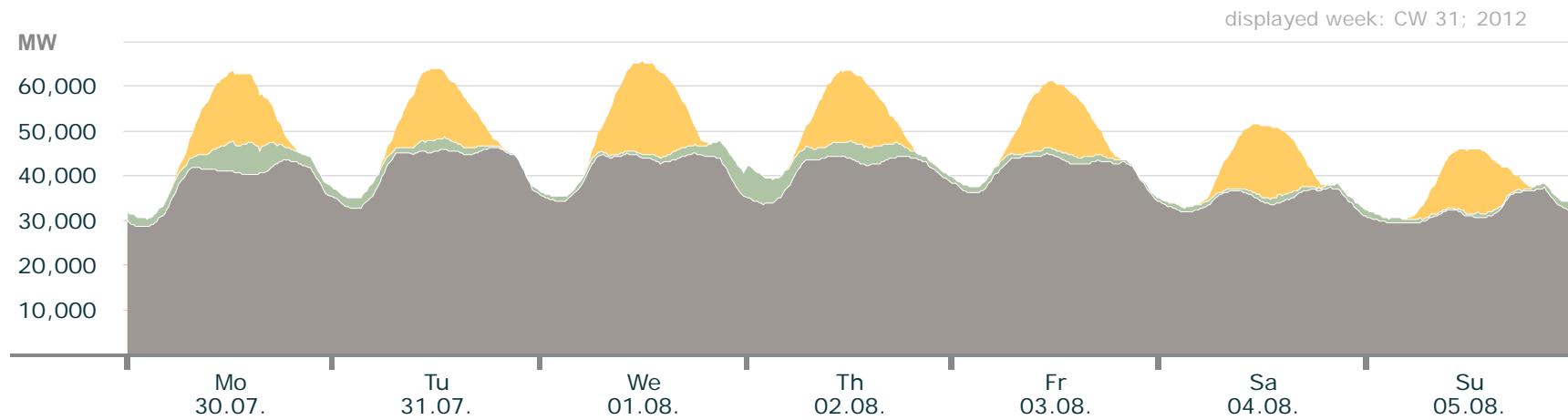


	max. power	date max. power	weekly energy
Solar	21.8 GW	23.07., 13:15 (+2:00)	1.0 TWh
Wind	5.8 GW	28.07., 12:30 (+2:00)	0.35 TWh
Conventional > 100 MW	48.0 GW	27.07., 11:00 (+2:00)	6.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 31

Actual production

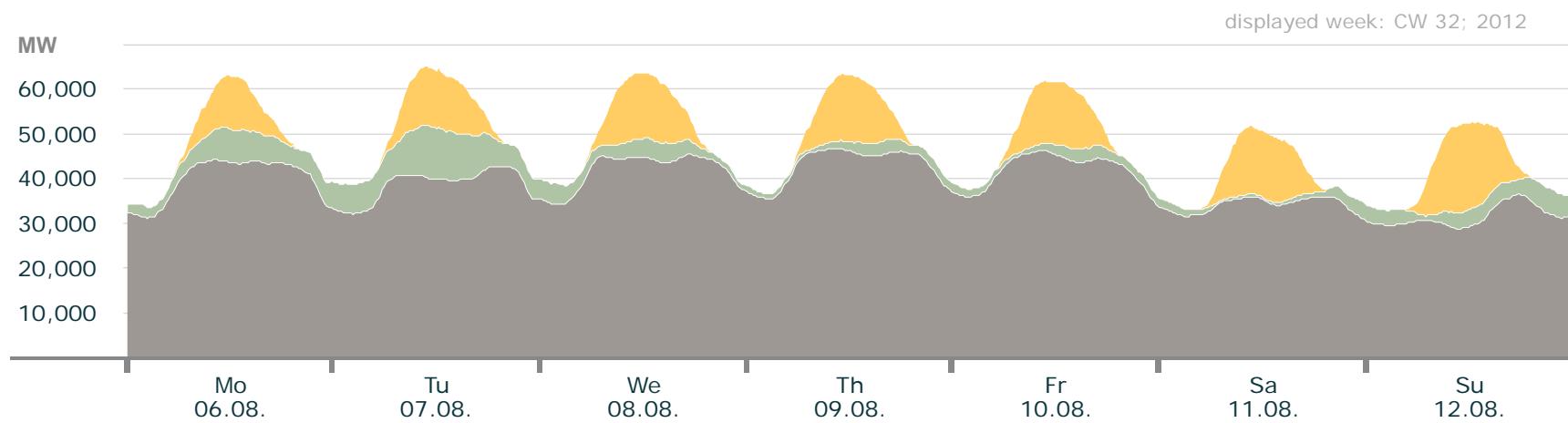


	max. power	date max. power	weekly energy
Solar	20.6 GW	01.08., 13:15 (+2:00)	0.94 TWh
Wind	7.4 GW	30.07., 15:00 (+2:00)	0.32 TWh
Conventional > 100 MW	46.3 GW	31.07., 20:00 (+2:00)	6.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 32

Actual production

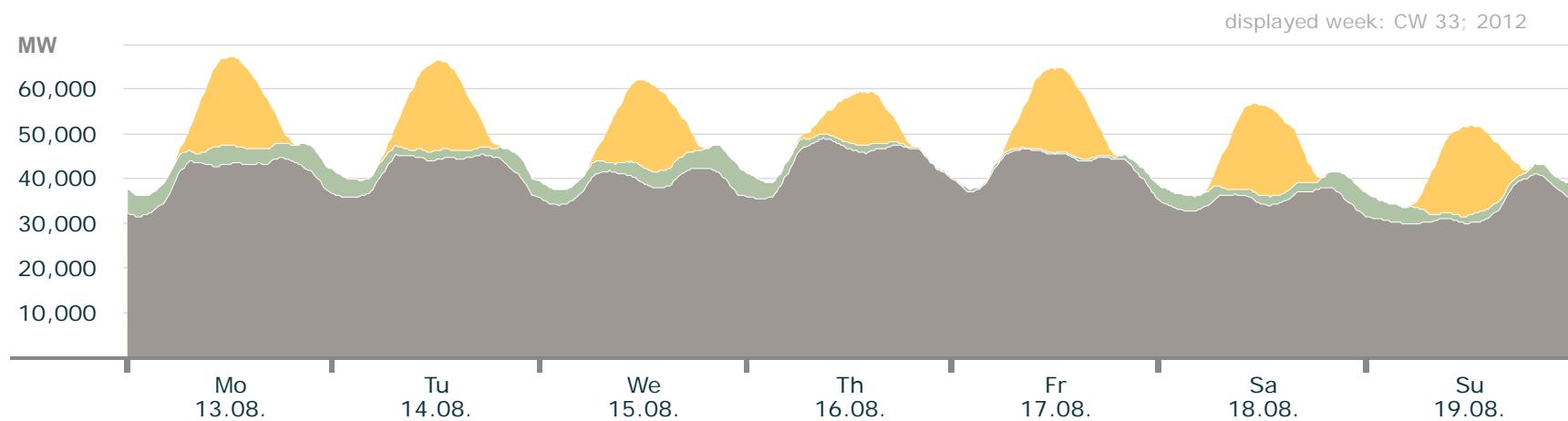


	max. power	date max. power	weekly energy
Solar	19.9 GW	12.08., 12:30 (+2:00)	0.88 TWh
Wind	11.8 GW	07.08., 13:00 (+2:00)	0.59 TWh
Conventional > 100 MW	46.9 GW	09.08., 11:00 (+2:00)	6.5 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 33

Actual production

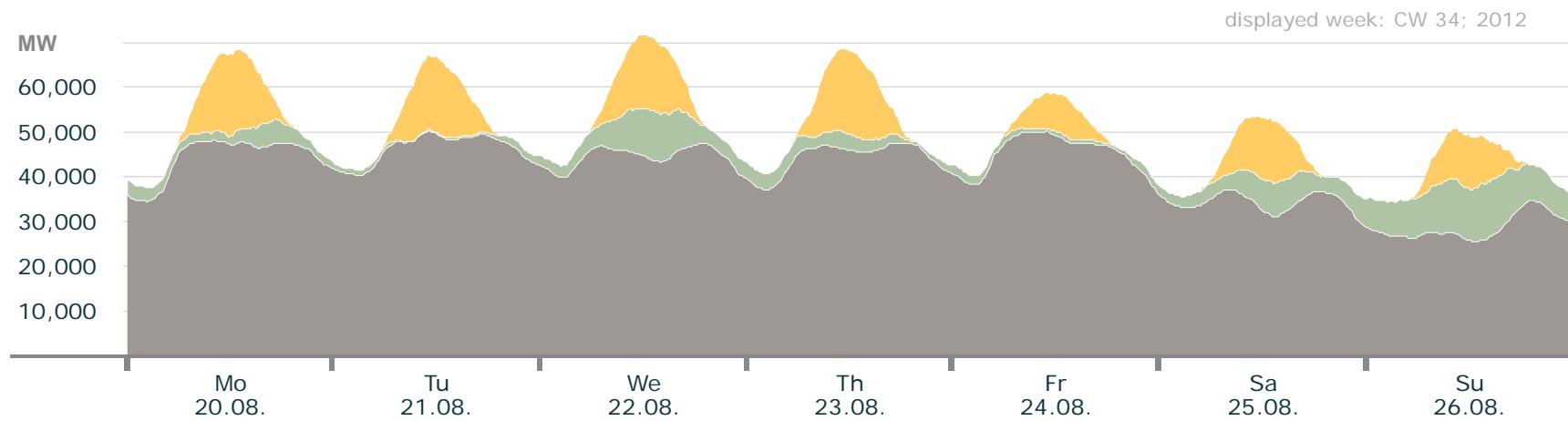


	max. power	date max. power	weekly energy
Solar	20.1 GW	18.08., 13:15 (+2:00)	1.0 TWh
Wind	6.5 GW	15.08., 23:15 (+2:00)	0.43 TWh
Conventional > 100 MW	49.2 GW	16.08., 10:00 (+2:00)	6.7 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 34

Actual production

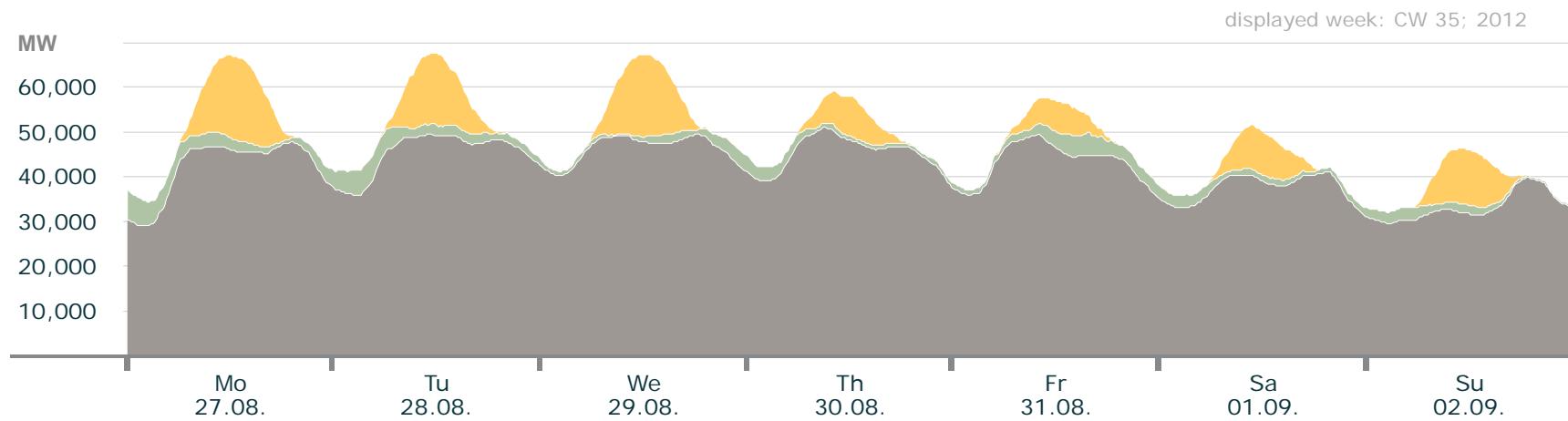


	max. power	date max. power	weekly energy
Solar	18.8 GW	23.08., 13:15 (+2:00)	0.80 TWh
Wind	12.8 GW	26.08., 14:45 (+2:00)	0.66 TWh
Conventional > 100 MW	50.4 GW	21.08., 12:00 (+2:00)	6.9 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 35

Actual production

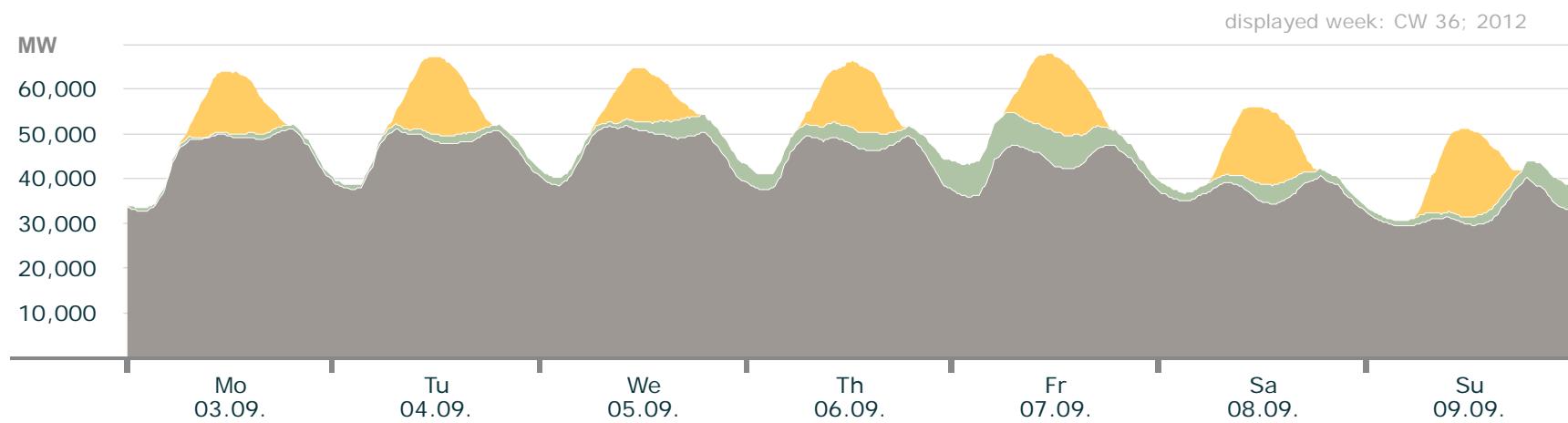


	max. power	date max. power	weekly energy
Solar	18.6 GW	27.08., 13:15 (+2:00)	0.68 TWh
Wind	6.2 GW	27.08., 01:45 (+2:00)	0.35 TWh
Conventional > 100 MW	51.1 GW	30.08., 10:00 (+2:00)	7.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 36

Actual production

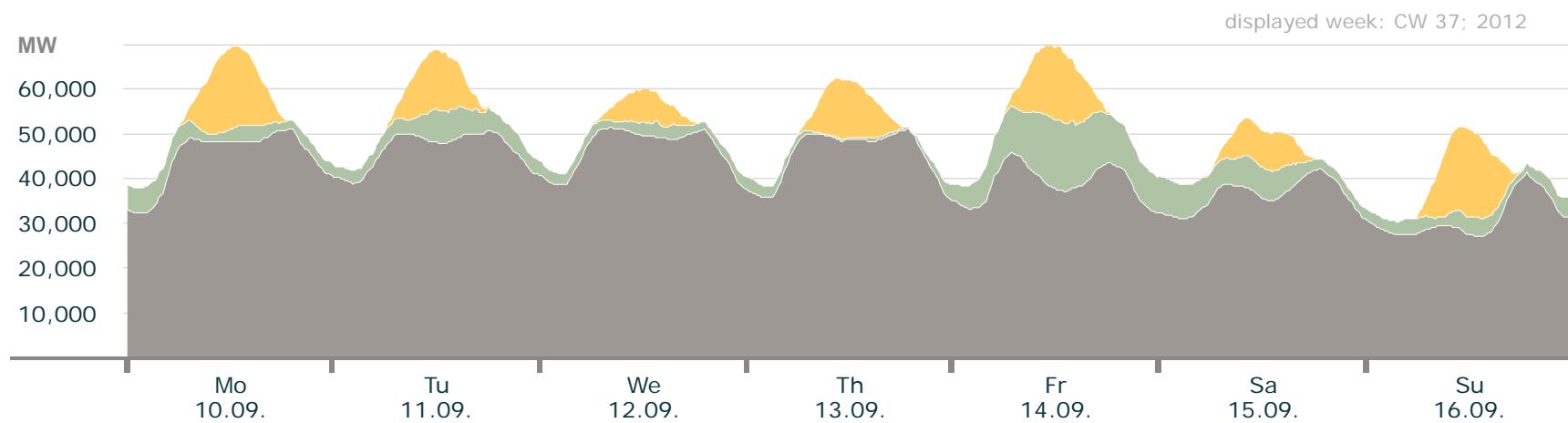


	max. power	date max. power	weekly energy
Solar	19.6 GW	09.09., 13:15 (+2:00)	0.83 TWh
Wind	8.4 GW	07.09., 05:30 (+2:00)	0.46 TWh
Conventional > 100 MW	52.0 GW	05.09., 11:00 (+2:00)	7.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 37

Actual production

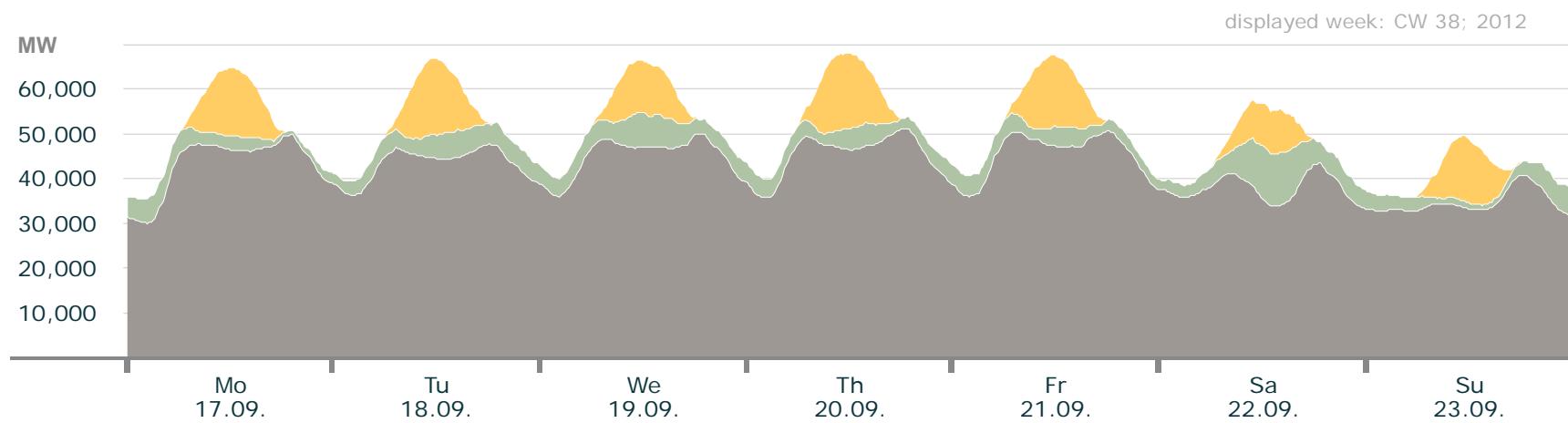


	max. power	date max. power	weekly energy
Solar	19.3 GW	16.09., 13:15 (+2:00)	0.68 TWh
Wind	15.6 GW	14.09., 12:00 (+2:00)	0.74 TWh
Conventional > 100 MW	51.5 GW	12.09., 09:00 (+2:00)	7.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 38

Actual production

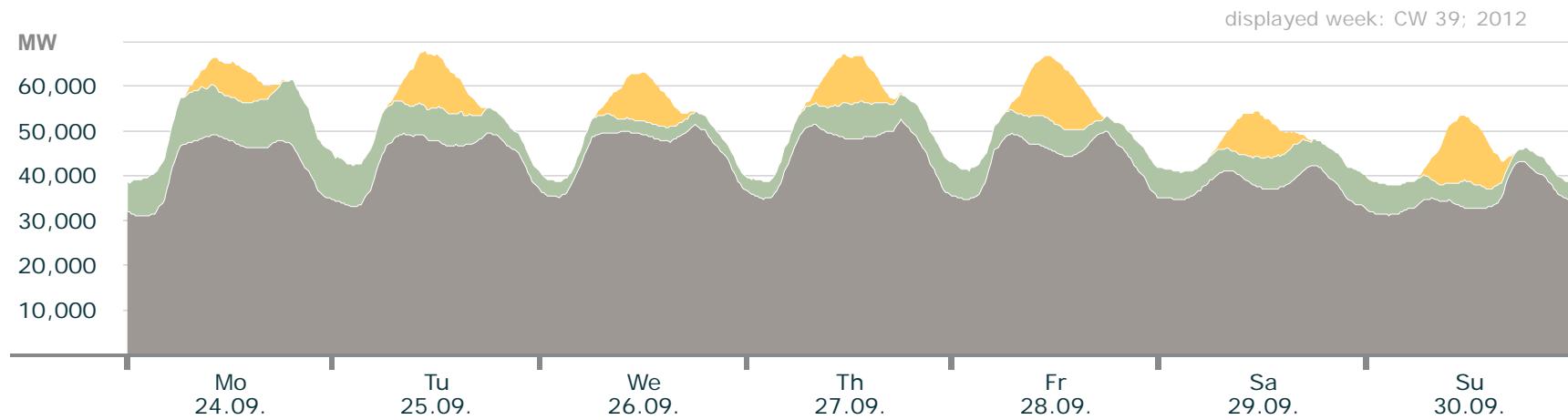


	max. power	date max. power	weekly energy
Solar	17.0 GW	20.09., 11:45 (+2:00)	0.70 TWh
Wind	12.3 GW	22.09., 13:30 (+2:00)	0.70 TWh
Conventional > 100 MW	51.3 GW	20.09., 19:00 (+2:00)	7.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 39

Actual production

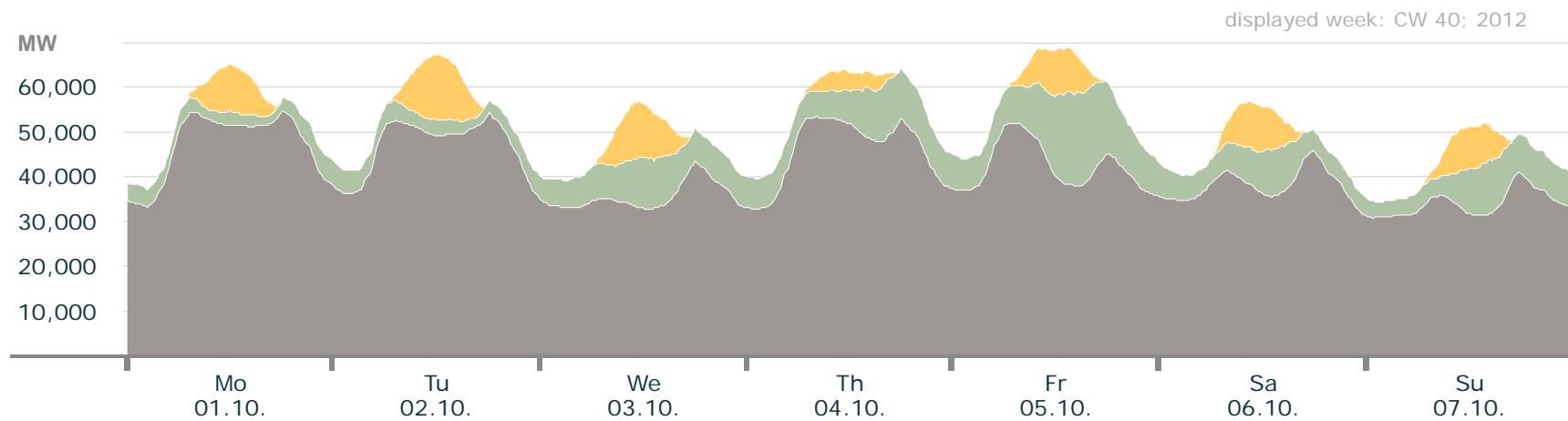


	max. power	date max. power	weekly energy
Solar	14.7 GW	30.09., 12:30 (+2:00)	0.53 TWh
Wind	14.7 GW	24.09., 20:45 (+2:00)	1.1 TWh
Conventional > 100 MW	52.7 GW	27.09., 19:00 (+2:00)	7.1 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 40

Actual production

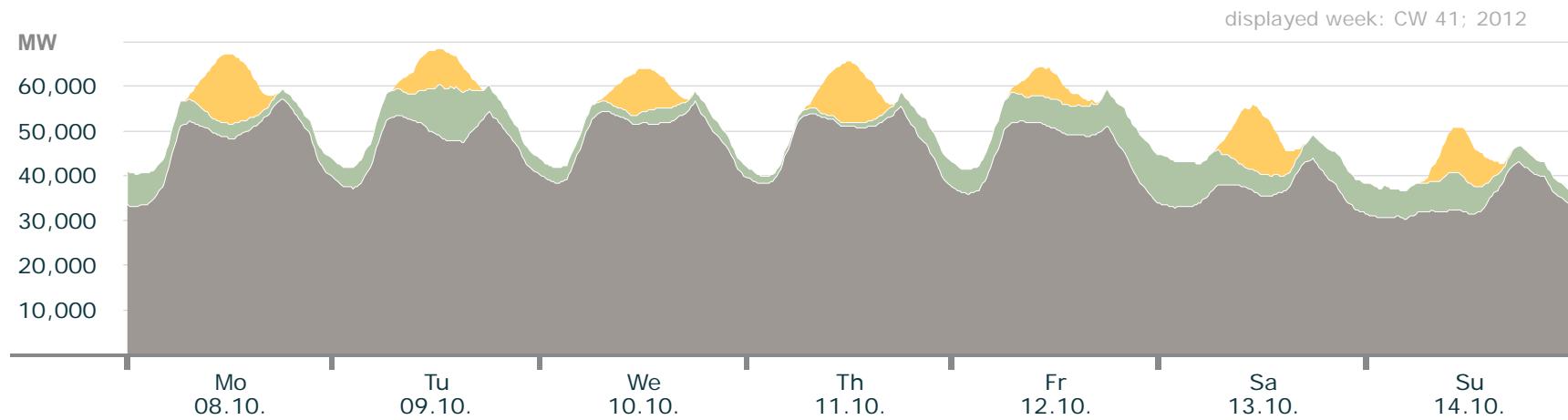


	max. power	date max. power	weekly energy
Solar	14.3 GW	02.10., 13:00 (+2:00)	0.47 TWh
Wind	21.1 GW	05.10., 15:45 (+2:00)	1.2 TWh
Conventional > 100 MW	55.0 GW	01.10., 19:00 (+2:00)	7.0 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 41

Actual production

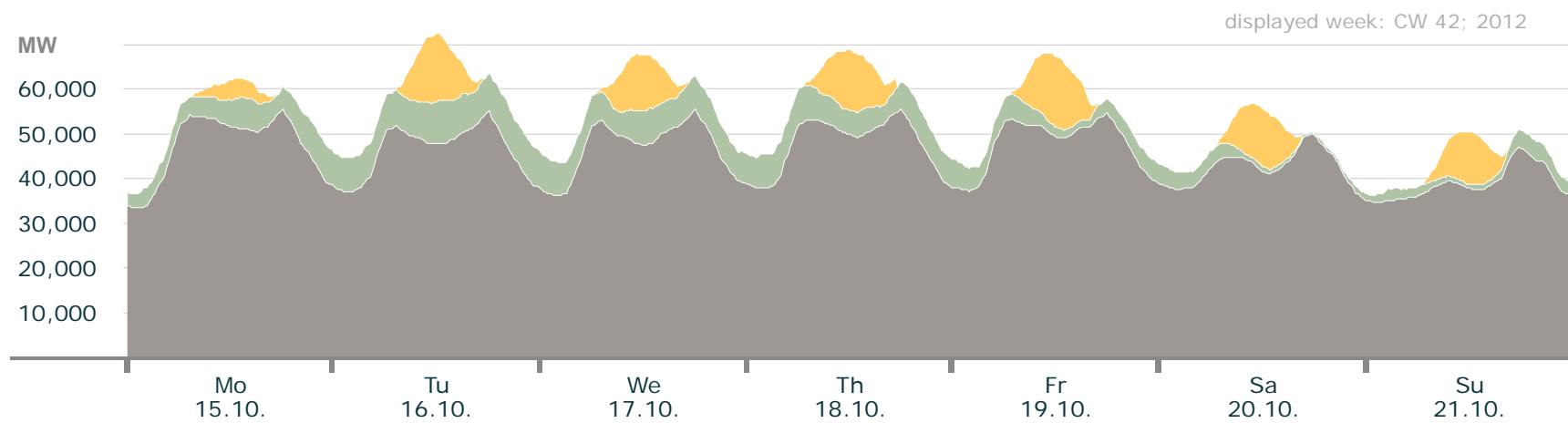


	max. power	date max. power	weekly energy
Solar	15.6 GW	08.10., 12:30 (+2:00)	0.47 TWh
Wind	11.9 GW	09.10., 14:30 (+2:00)	0.83 TWh
Conventional > 100 MW	57.4 GW	08.10., 19:00 (+2:00)	7.4 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 42

Actual production

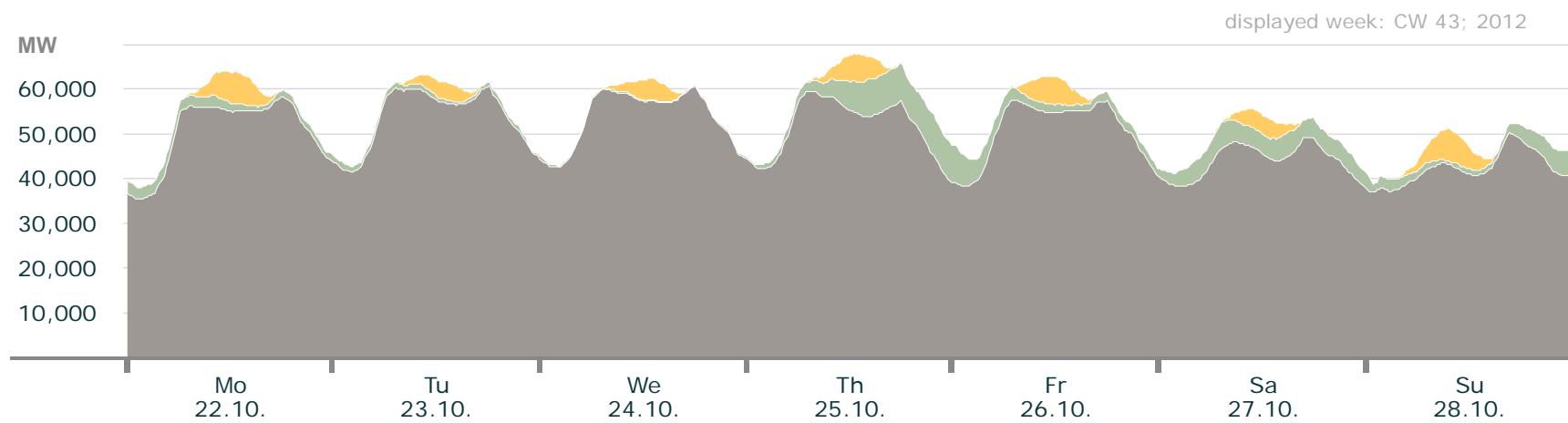


	max. power	date max. power	weekly energy
Solar	15.7 GW	19.10., 13:15 (+2:00)	0.51 TWh
Wind	9.8 GW	16.10., 21:00 (+2:00)	0.85 TWh
Conventional > 100 MW	55.6 GW	18.10., 19:00 (+2:00)	7.6 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 43

Actual production

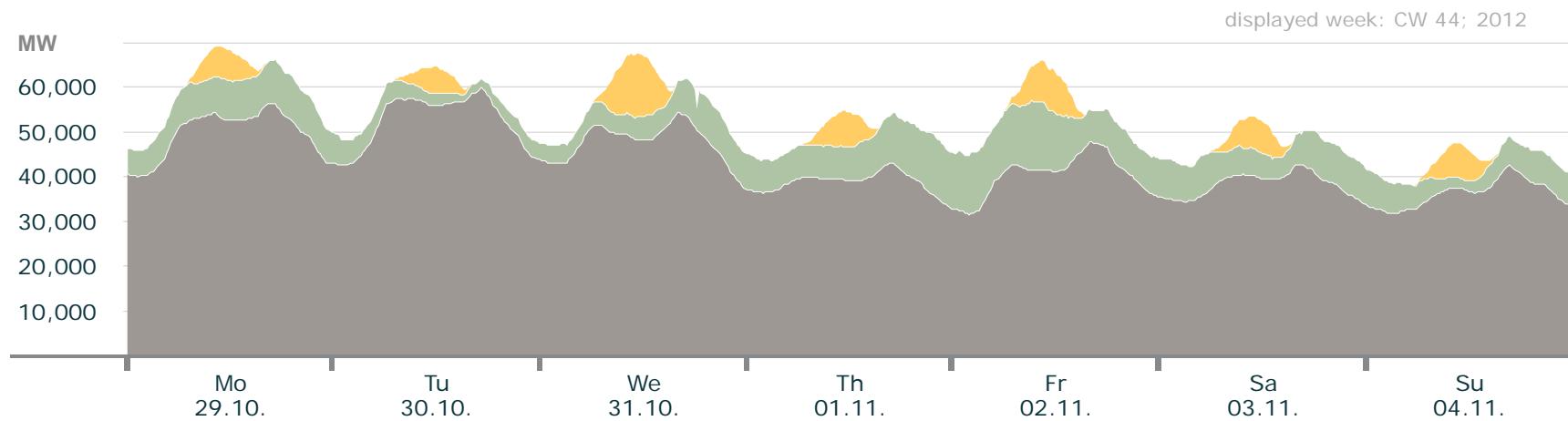


	max. power	date max. power	weekly energy
Solar	7.2 GW	28.10., 11:15 (+1:00)	0.22 TWh
Wind	9.2 GW	25.10., 22:45 (+2:00)	0.44 TWh
Conventional > 100 MW	60.9 GW	24.10., 19:00 (+2:00)	8.34 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 44

Actual production

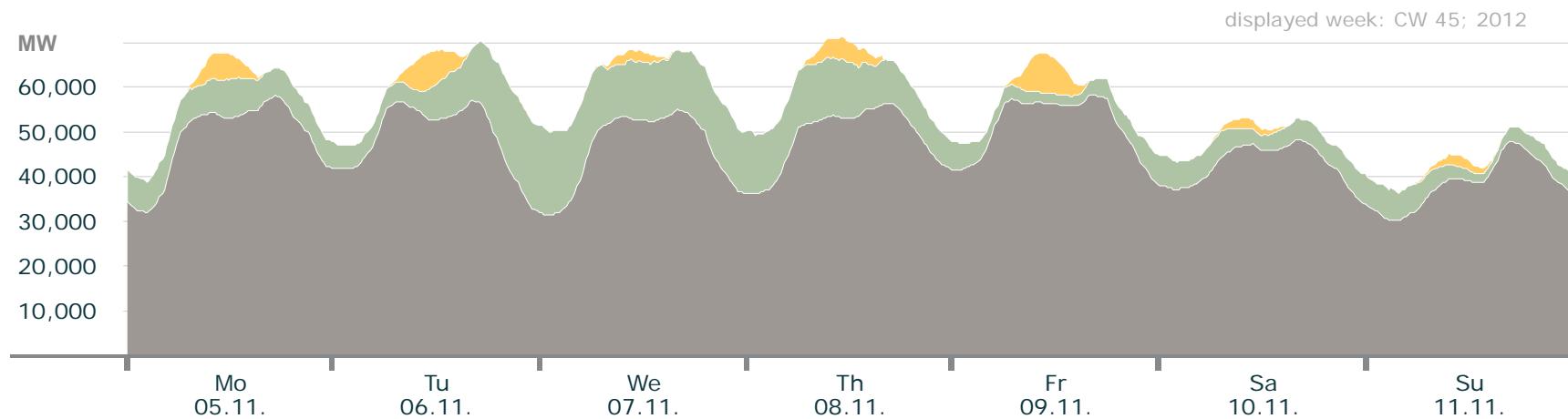


	max. power	date max. power	weekly energy
Solar	14.0 GW	31.10., 12:15 (+1:00)	0.32 TWh
Wind	15.4 GW	02.11., 10:15 (+1:00)	1.23 TWh
Conventional > 100 MW	60.0 GW	30.10., 18:00 (+1:00)	7.30 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 45

Actual production

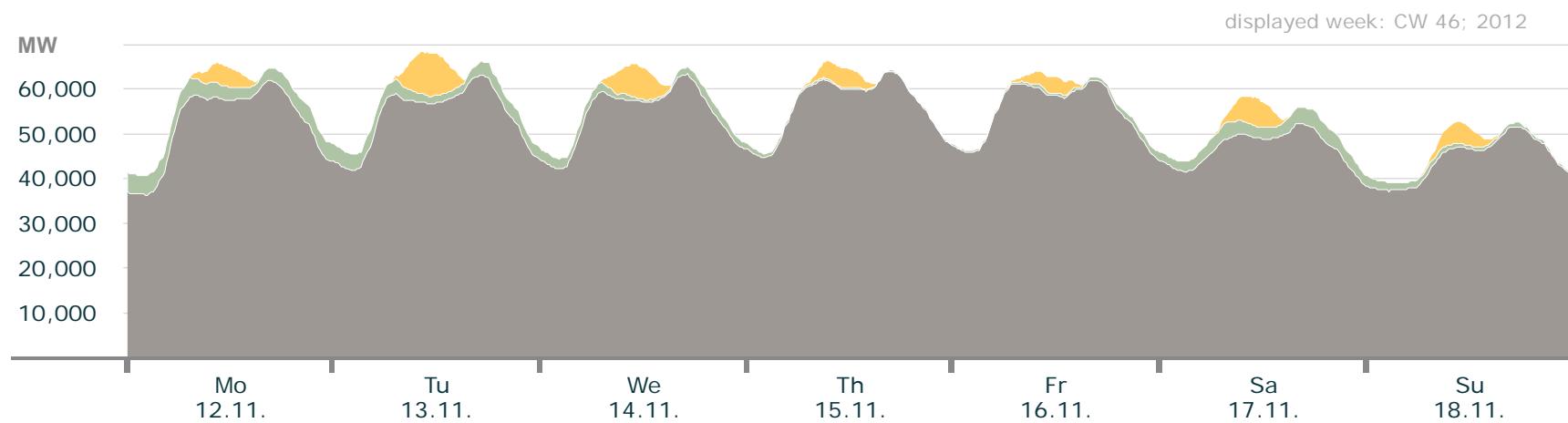


	max. power	date max. power	weekly energy
Solar	8.9 GW	09.11., 11:45 (+1:00)	0.18 TWh
Wind	19.7 GW	07.11., 01:00 (+1:00)	1.34 TWh
Conventional > 100 MW	58.4 GW	05.11., 18:00 (+1:00)	7.81 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 46

Actual production

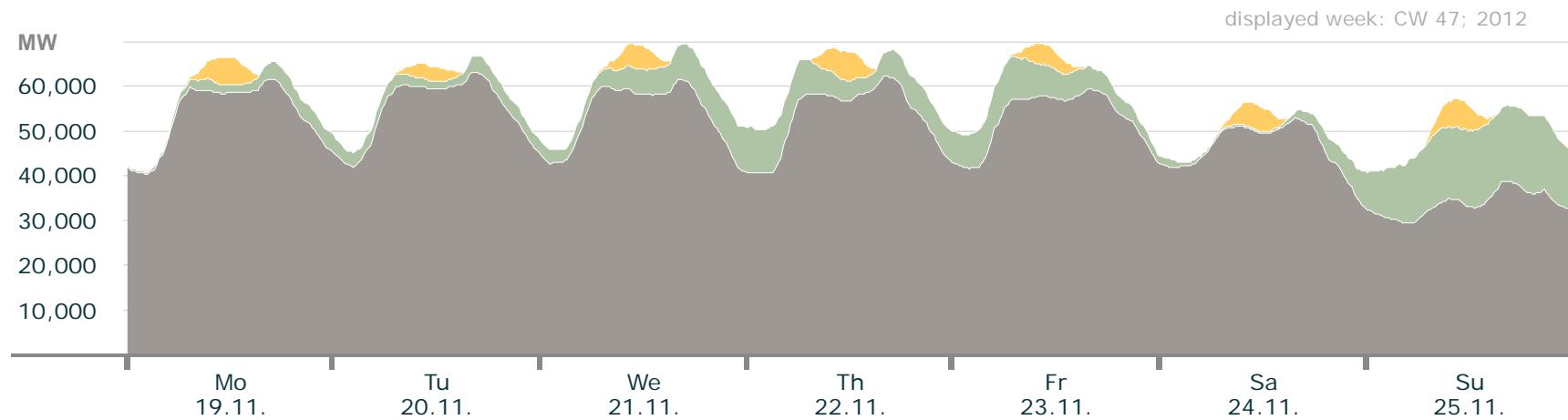


	max. power	date max. power	weekly energy
Solar	9.6 GW	13.11., 12:00 (+1:00)	0.20 TWh
Wind	4.4 GW	12.11., 15:00 (+1:00)	0.31 TWh
Conventional > 100 MW	64.2 GW	15.11., 18:00 (+1:00)	8.74 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 47

Actual production

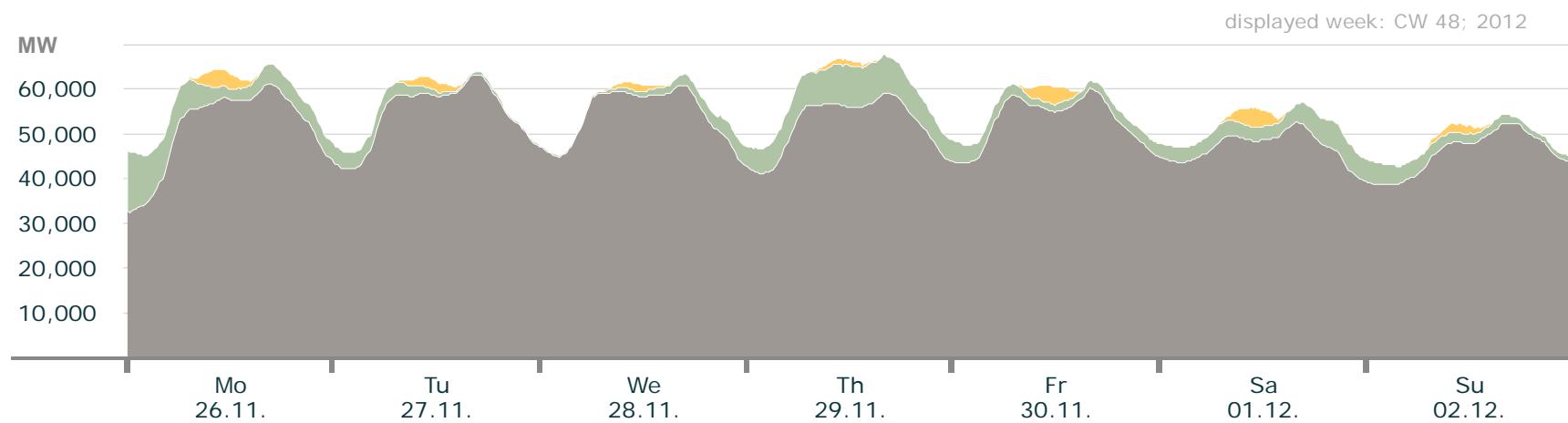


	max. power	date max. power	weekly energy
Solar	6.4 GW	22.11., 12:30 (+1:00)	0.18 TWh
Wind	17.8 GW	25.11., 14:45 (+1:00)	1.00 TWh
Conventional > 100 MW	63.3 GW	20.11., 17:00 (+1:00)	8.37 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 48

Actual production

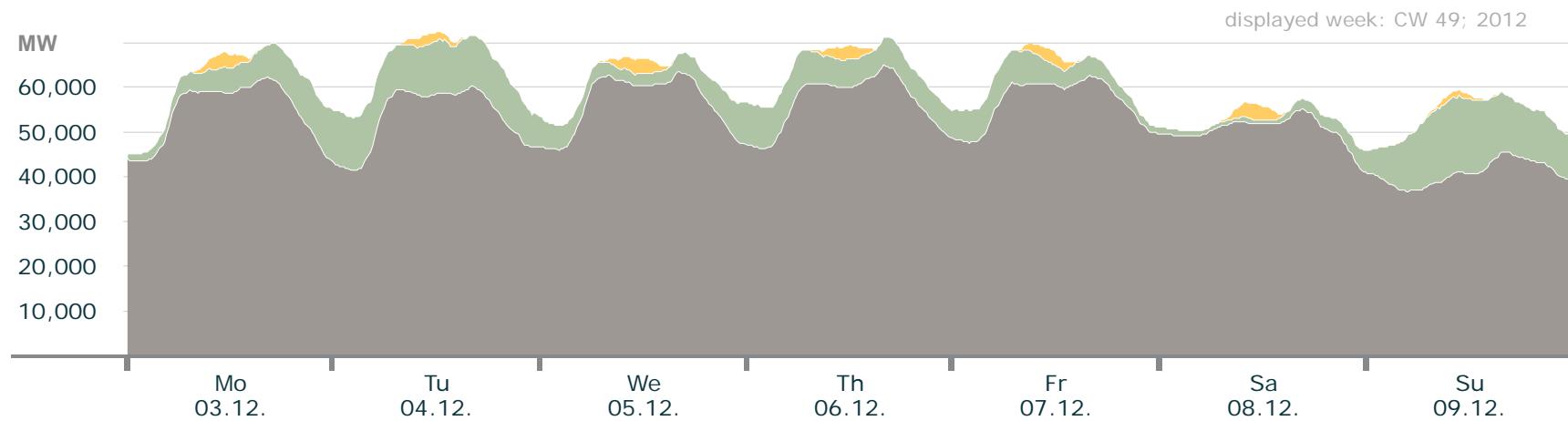


	max. power	date max. power	weekly energy
Solar	4.2 GW	01.12., 12:15 (+1:00)	0.08 TWh
Wind	12.2 GW	26.11., 01:00 (+1:00)	0.60 TWh
Conventional > 100 MW	63.3 GW	27.11., 18:00 (+1:00)	8.61 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 49

Actual production

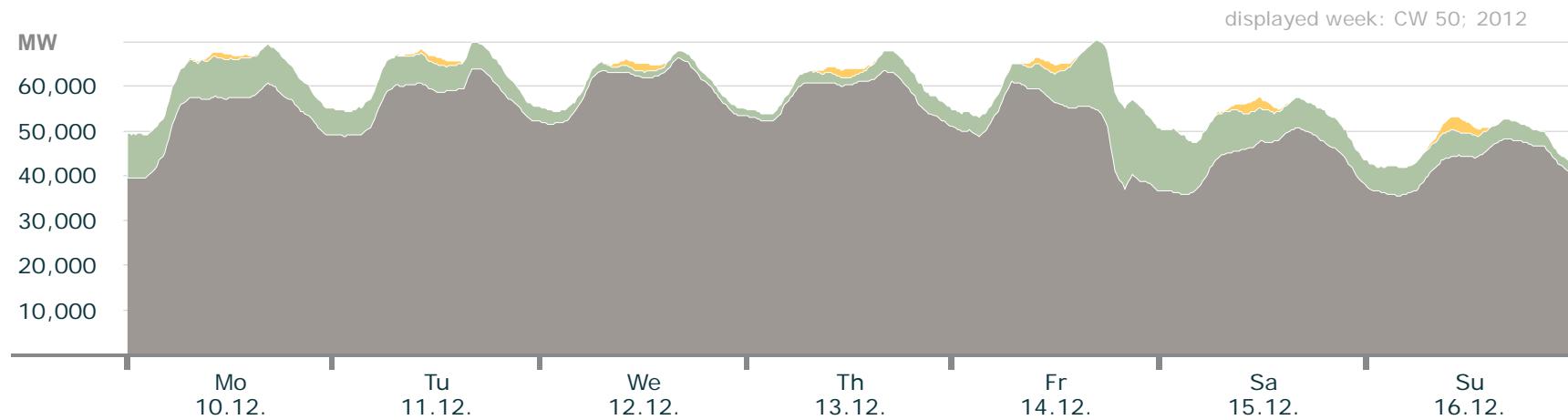


	max. power	date max. power	weekly energy
Solar	3.6 GW	08.12., 12:30 (+1:00)	0.09 TWh
Wind	17.1 GW	09.12., 11:15 (+1:00)	1.17 TWh
Conventional > 100 MW	65.1 GW	06.12., 17:00 (+1:00)	8.86 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 50

Actual production

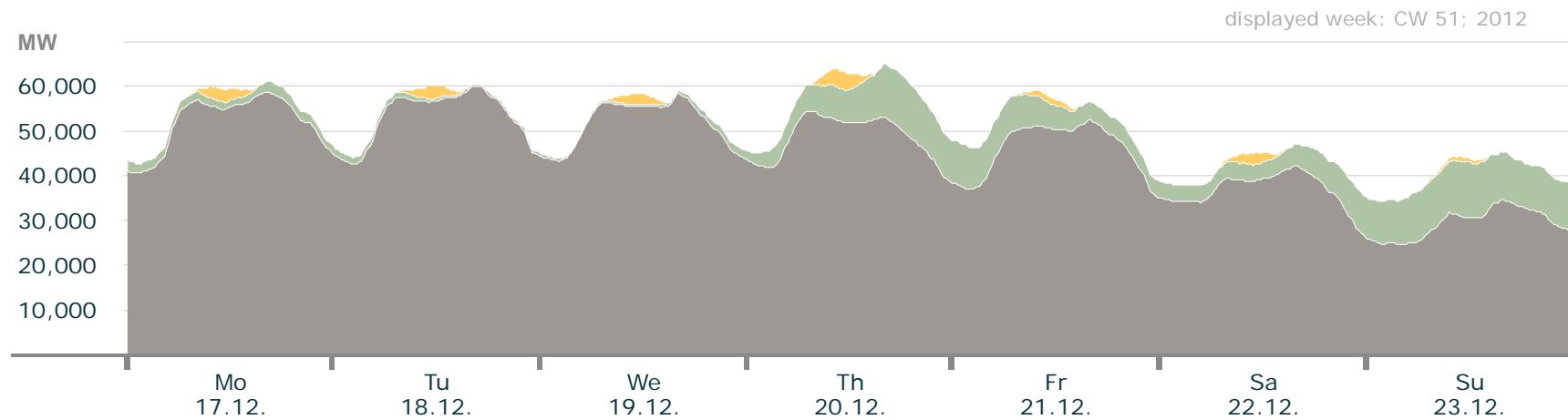


	max. power	date max. power	weekly energy
Solar	3.1 GW	16.12., 11:45 (+1:00)	0.06 TWh
Wind	17.9 GW	14.12., 21:15 (+1:00)	0.99 TWh
Conventional > 100 MW	66.5 GW	12.12., 17:00 (+1:00)	8.79 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 51

Actual production

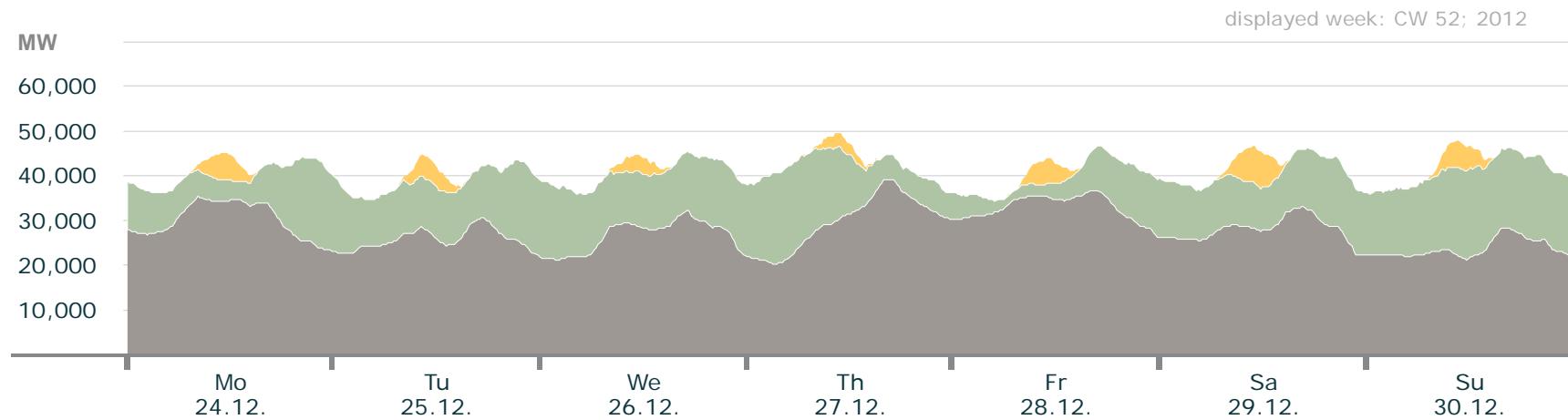


	max. power	date max. power	weekly energy
Solar	3.9 GW	20.12., 12:00 (+1:00)	0.07 TWh
Wind	12.5 GW	23.12., 13:00 (+1:00)	0.81 TWh
Conventional > 100 MW	59.9 GW	18.12., 18:00 (+1:00)	7.65 TWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 52

Actual production



	max. power	date max. power	weekly energy
Solar	8.3 GW	29.12., 12:15 (+1:00)	0.17 TWh
Wind	20.7 GW	27.12., 05:45 (+1:00)	2.05 TWh
Conventional > 100 MW	39.3 GW	27.12., 18:00 (+1:00)	4.74 TWh

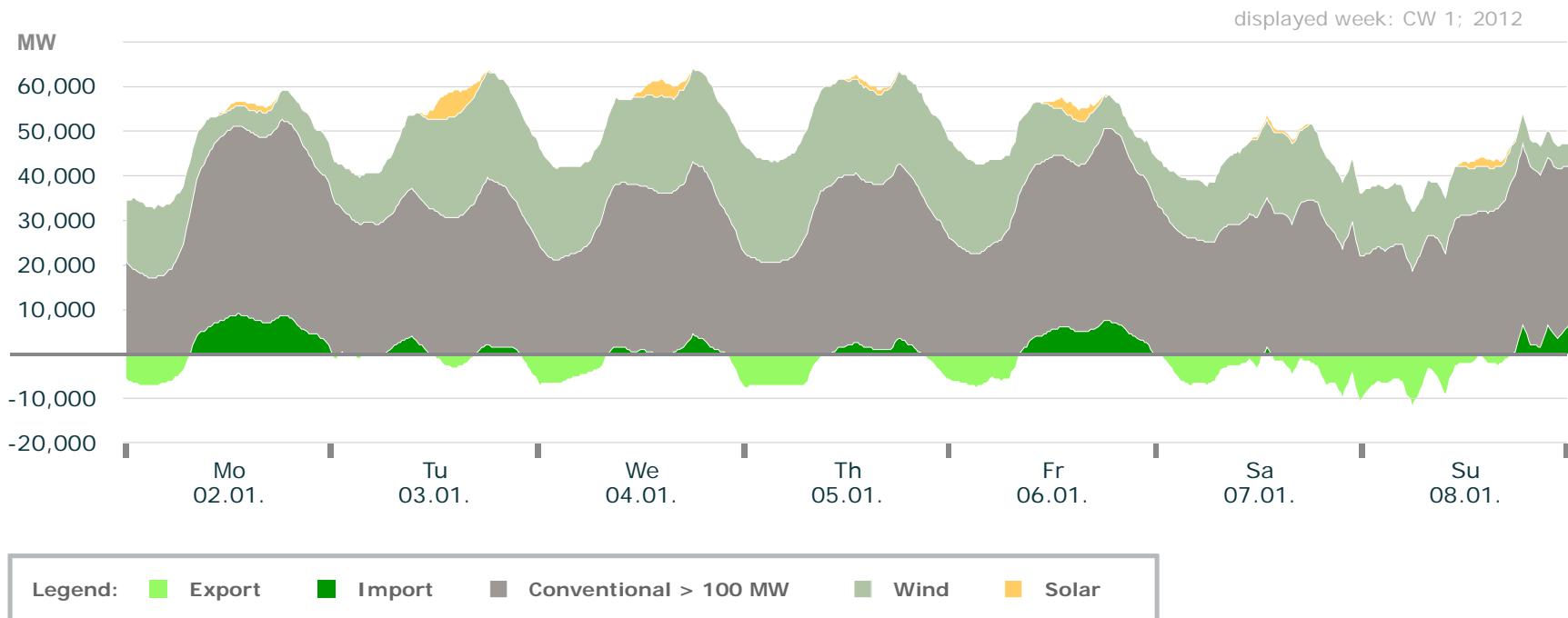
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

AGENDA

- Annual energies
 - Monthly energies
 - Weekly energies
 - Daily energies
 - Annual power curves
 - Monthly power curves
 - **Weekly power curves**
 - Weekly power curves for conventional, wind and solar
 - **Weekly power curves with import and export**
 - Detailed weekly power curves
 - Exemplary daily power curves
-

Electricity Production in Germany: Calendar Week 1

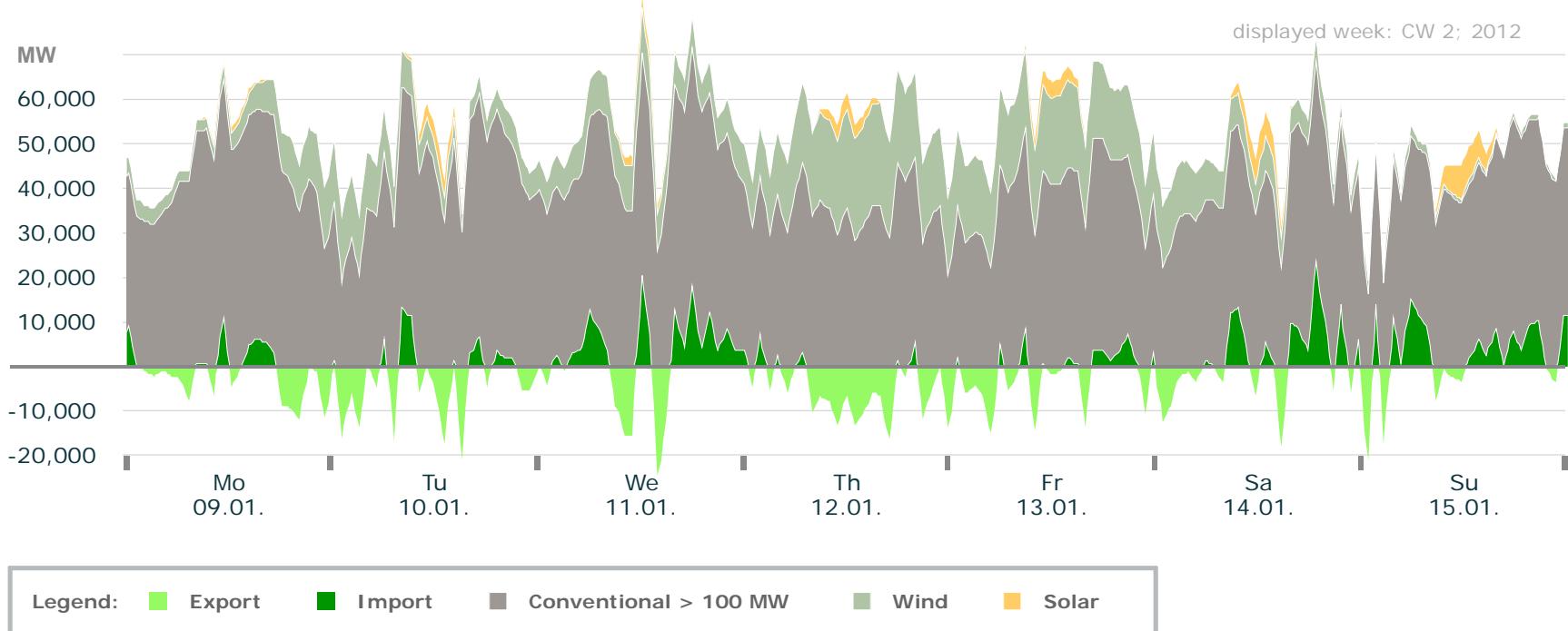
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 2

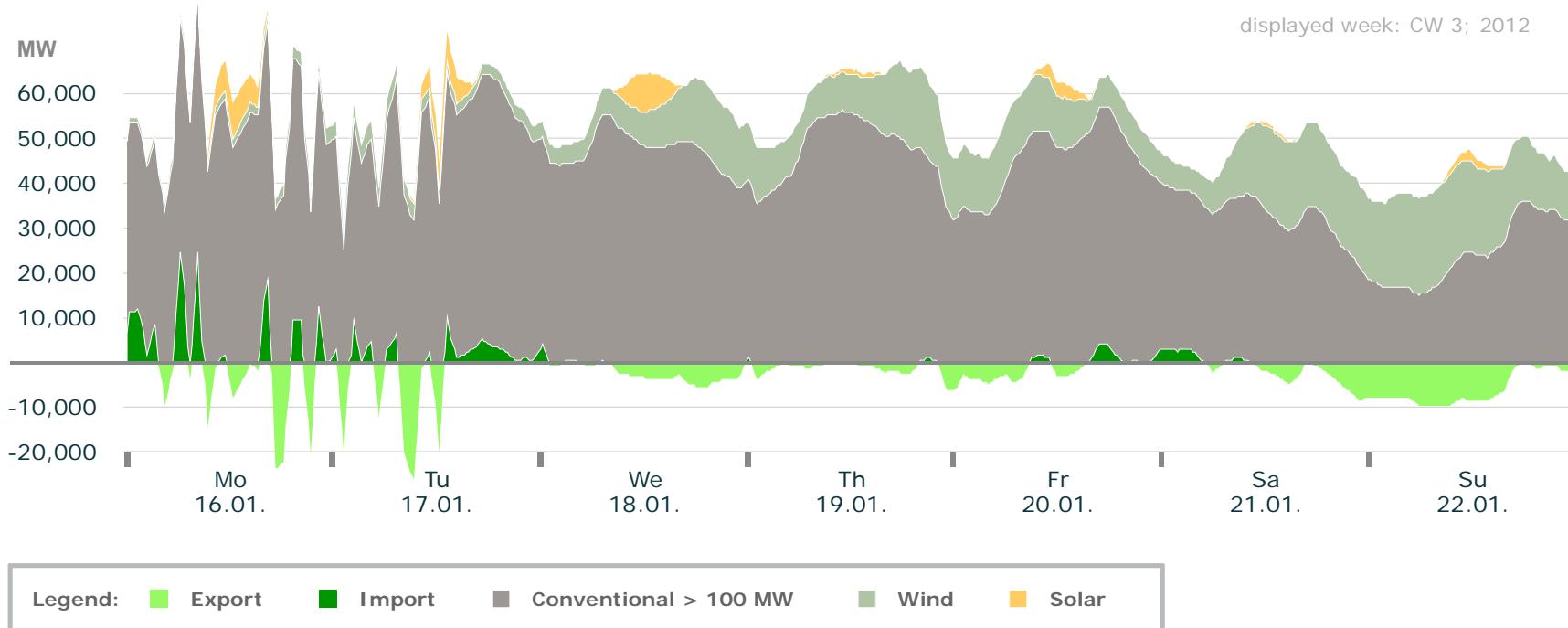
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 3

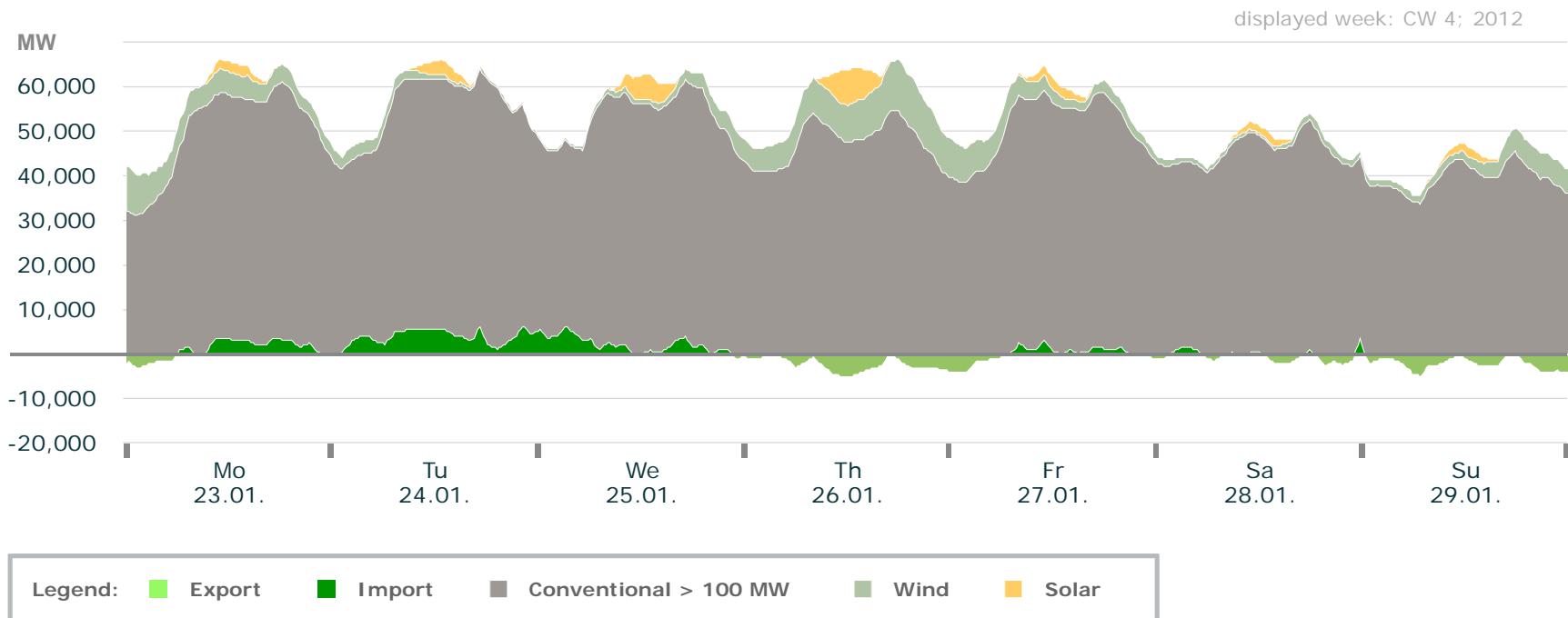
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 4

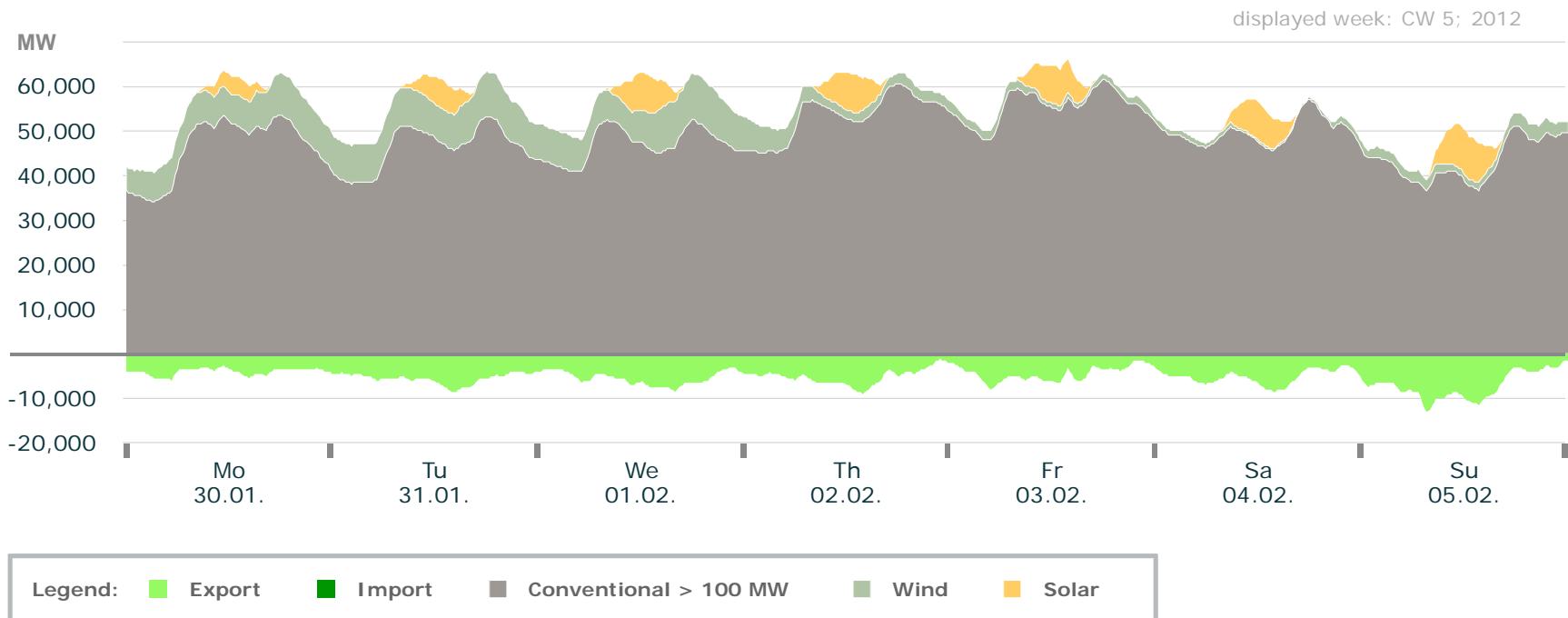
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 5

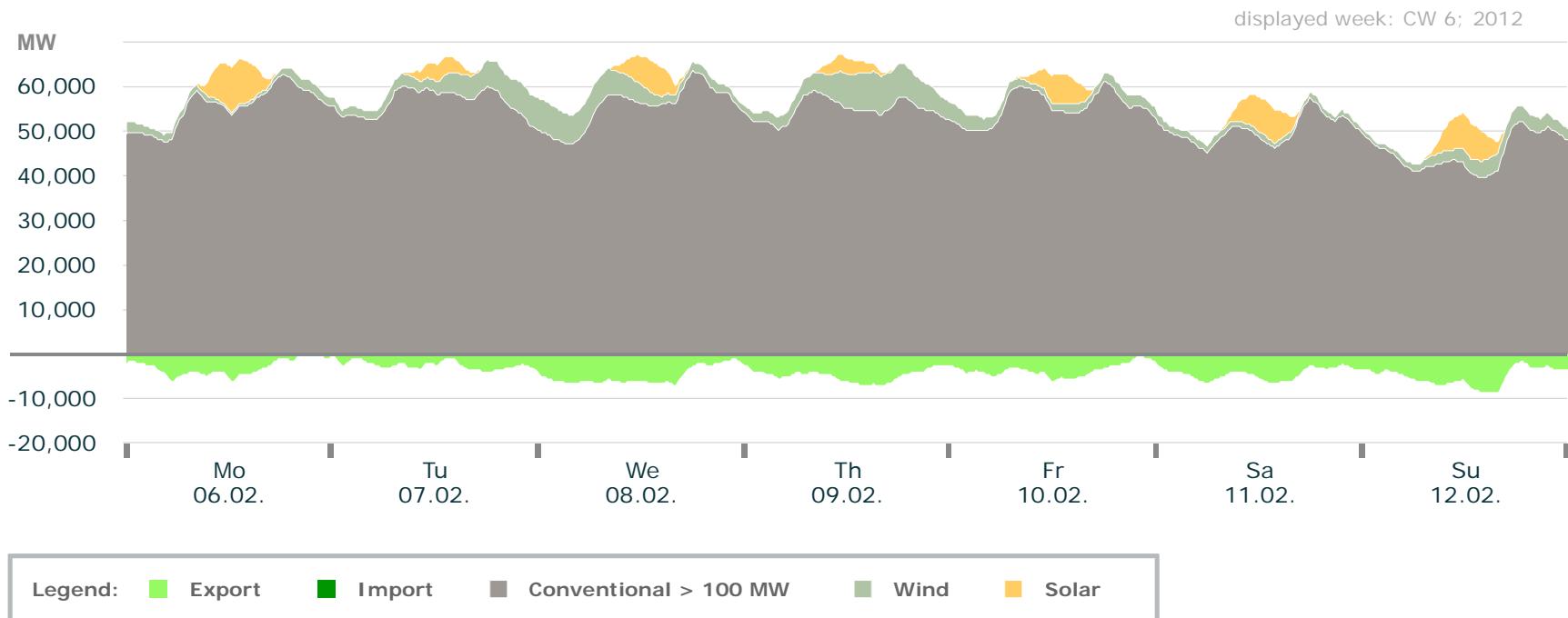
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 6

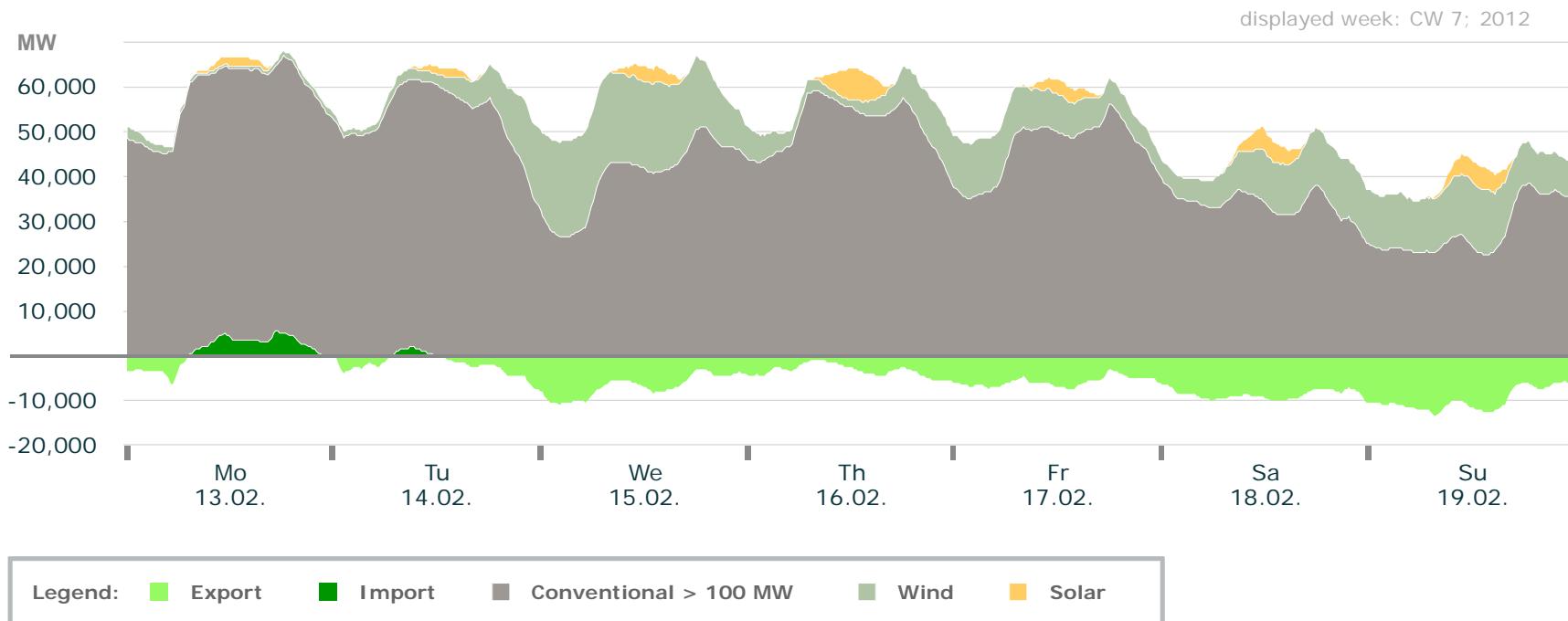
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 7

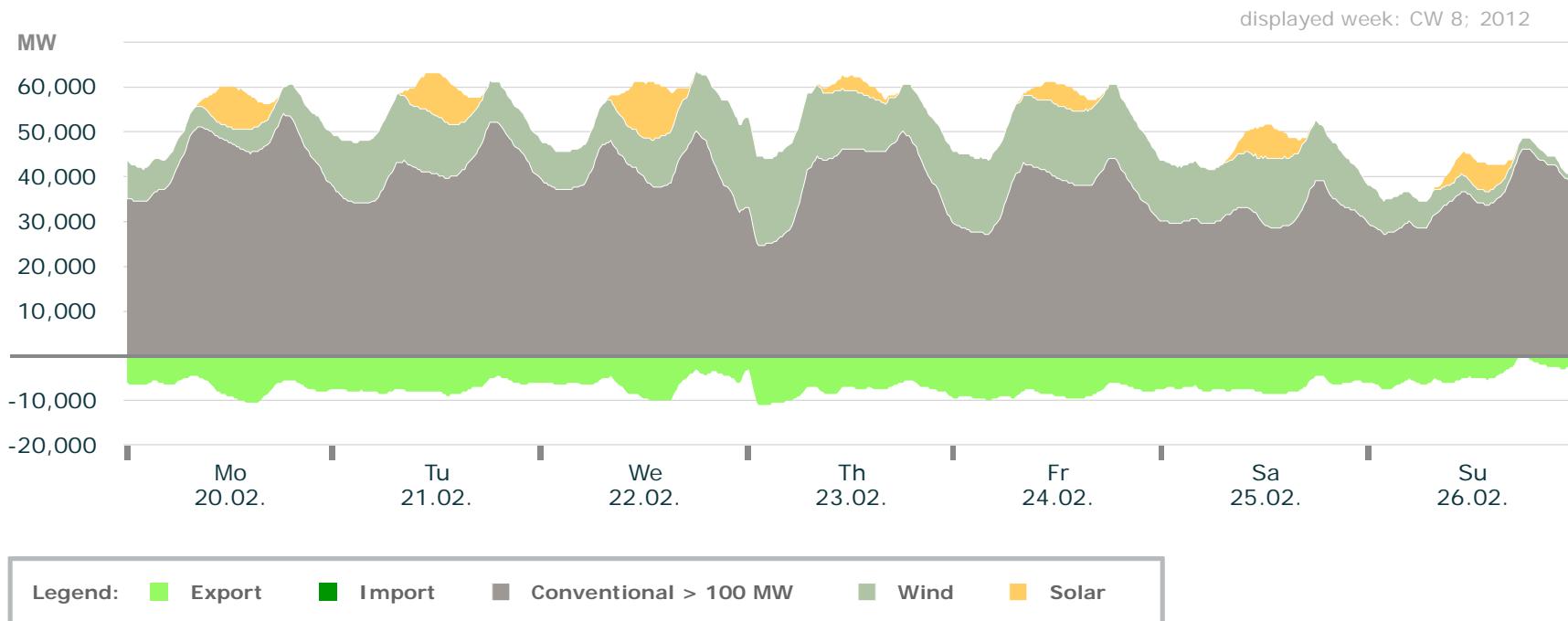
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 8

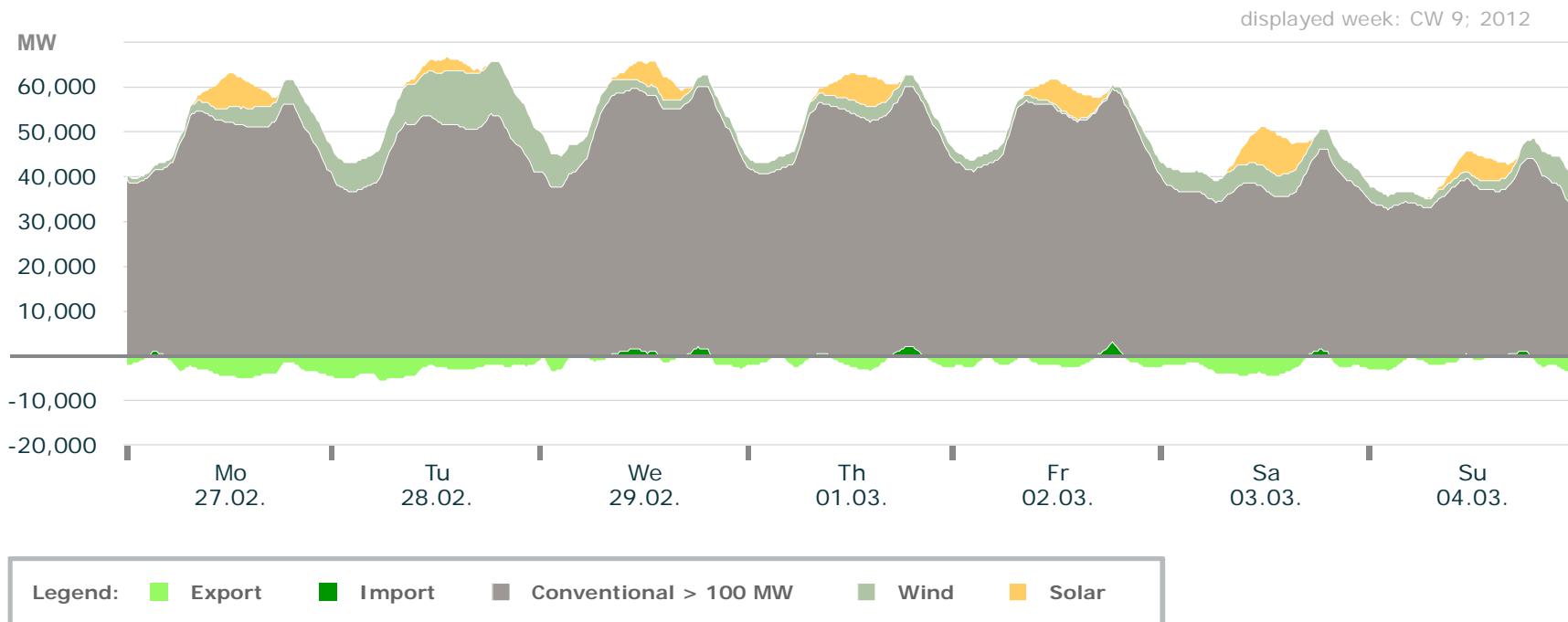
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 9

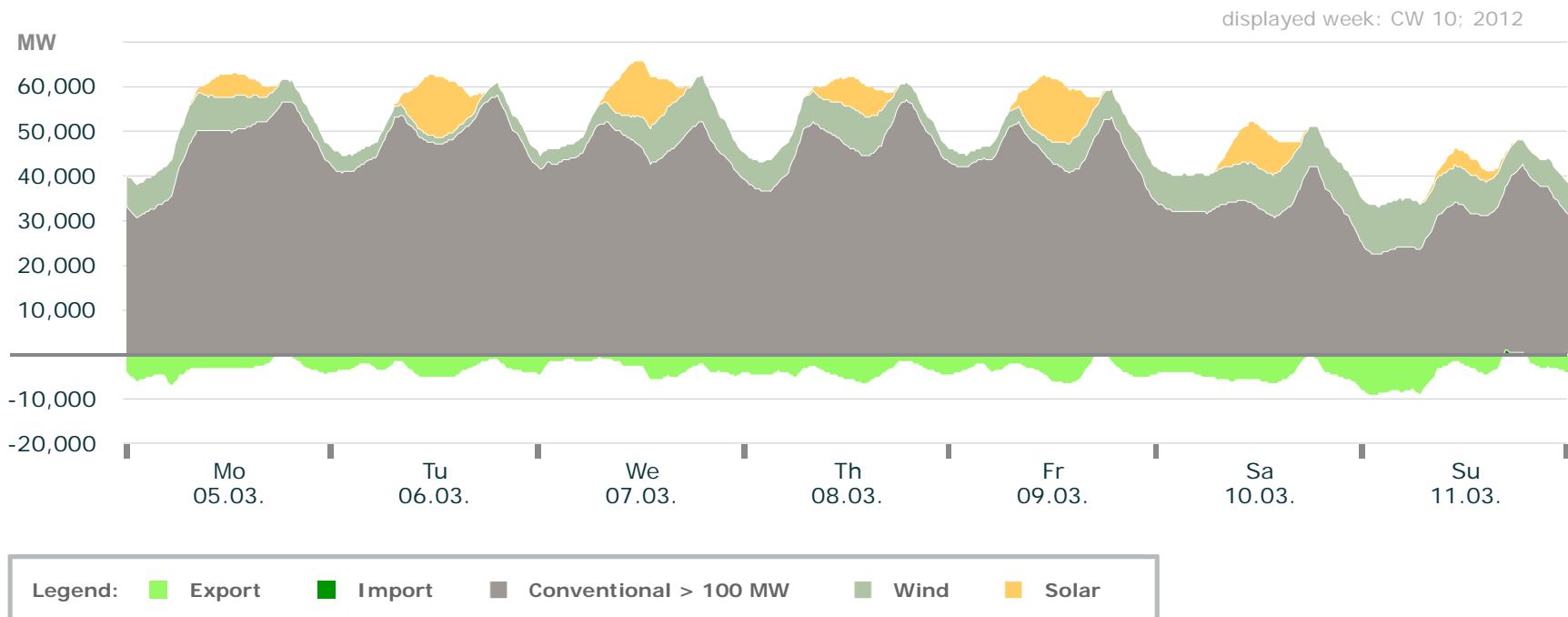
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 10

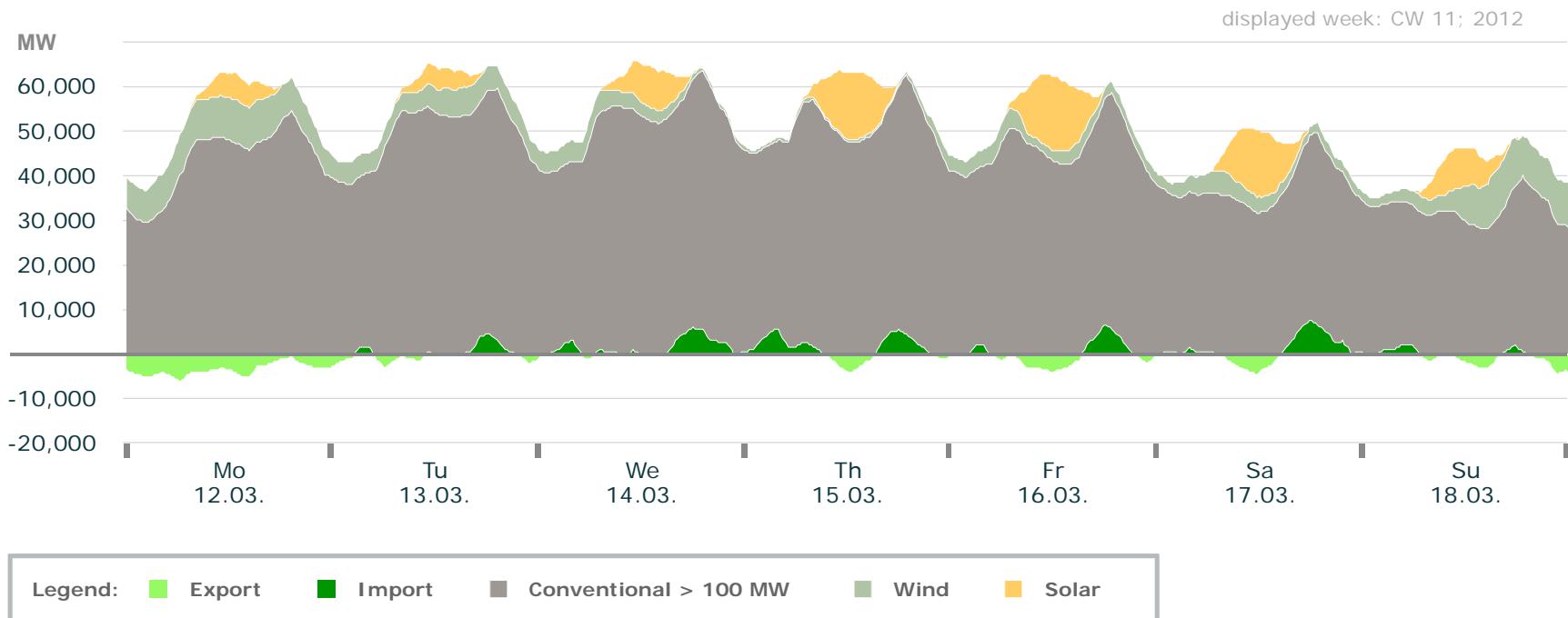
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 11

Actual production



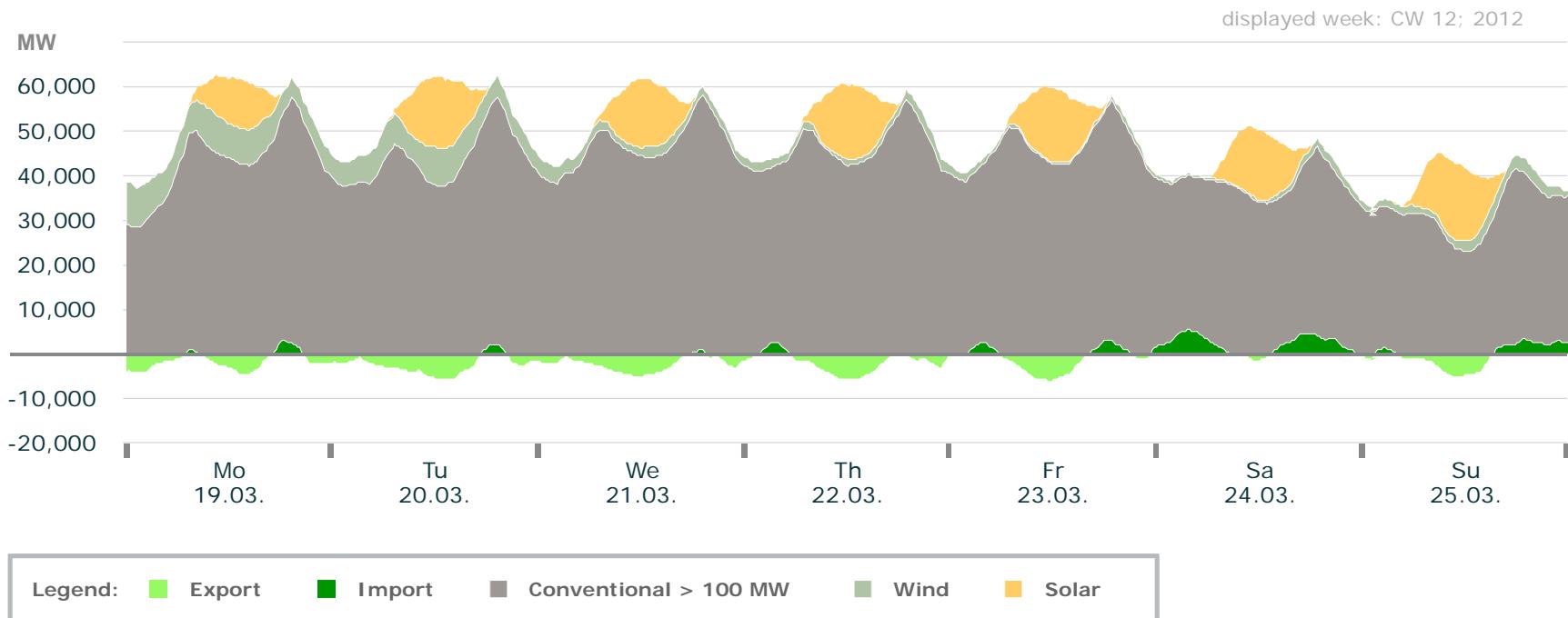
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

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Electricity Production in Germany: Calendar Week 12

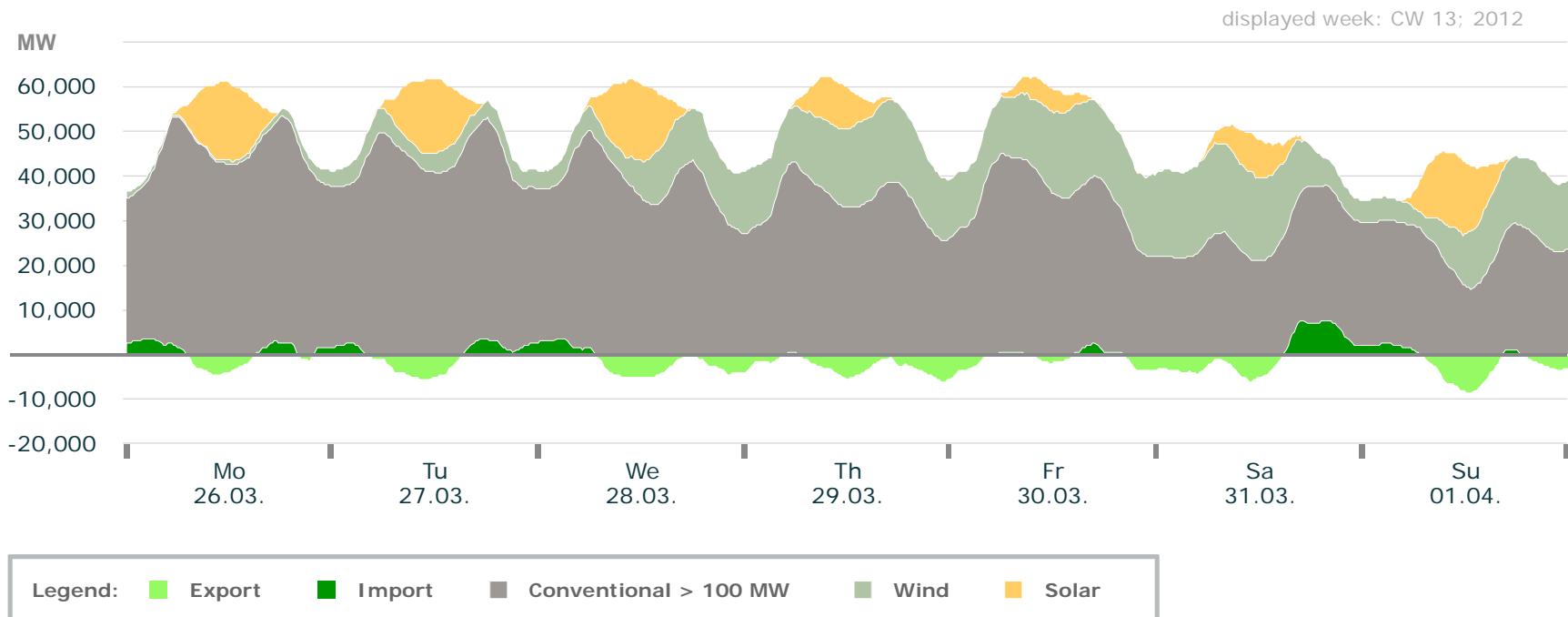
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 13

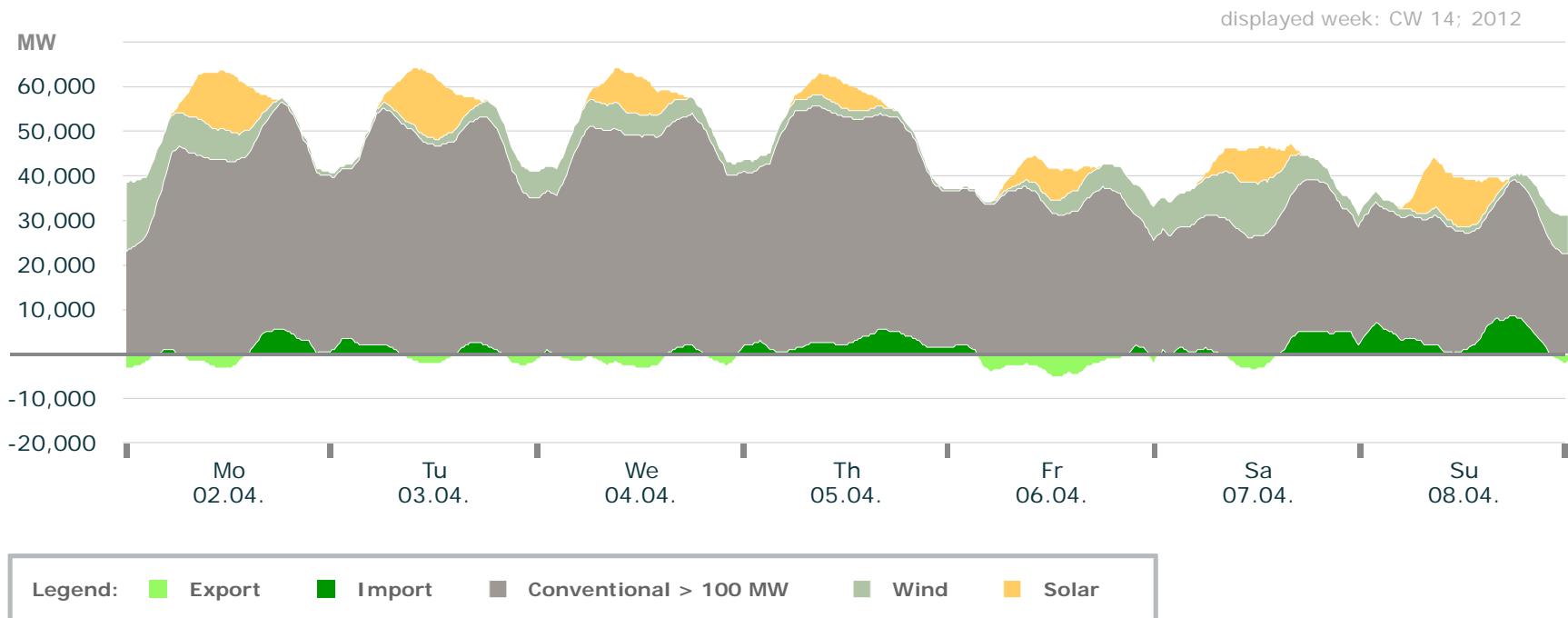
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 14

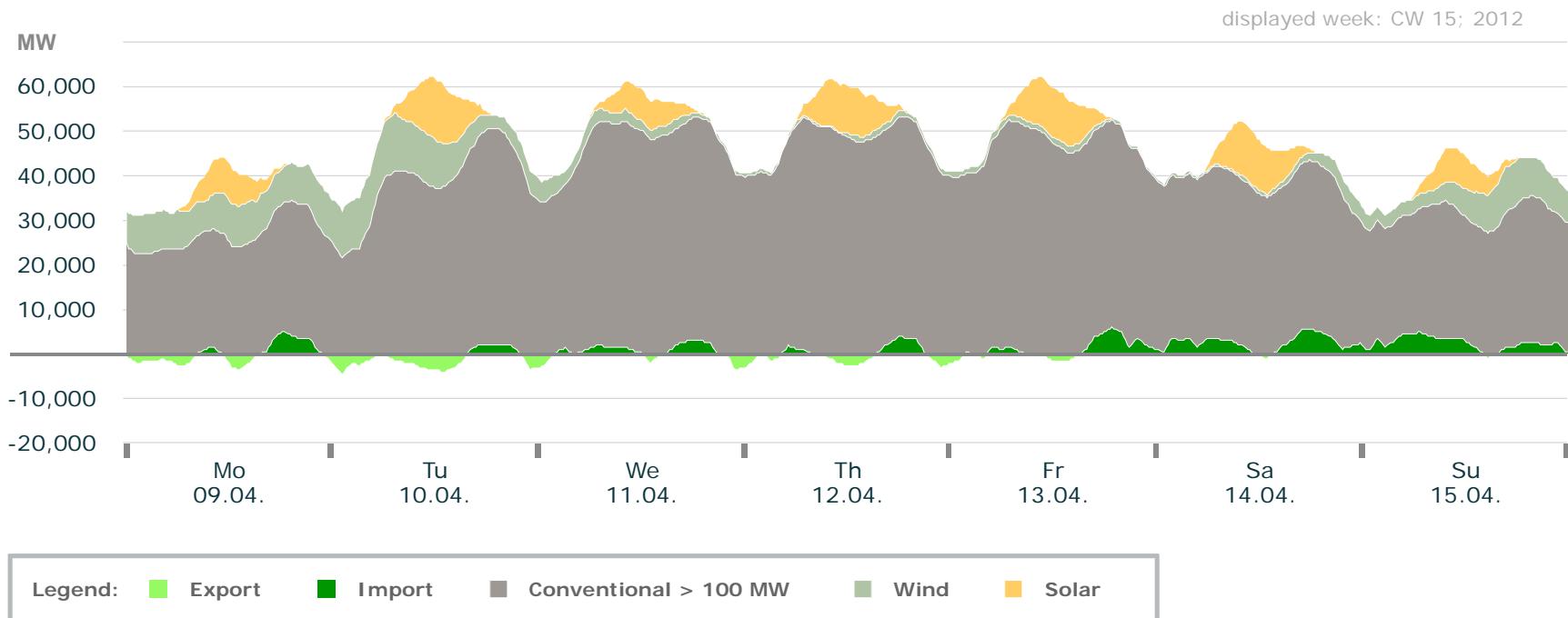
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 15

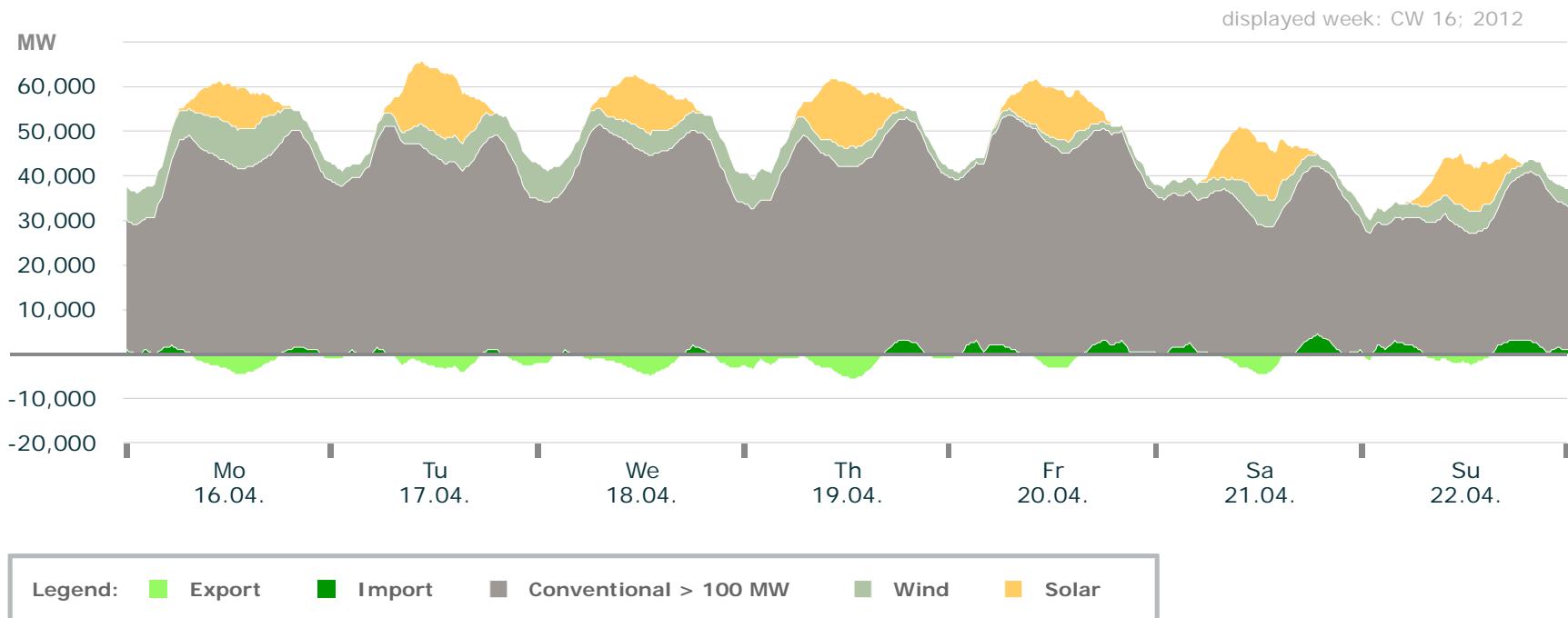
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 16

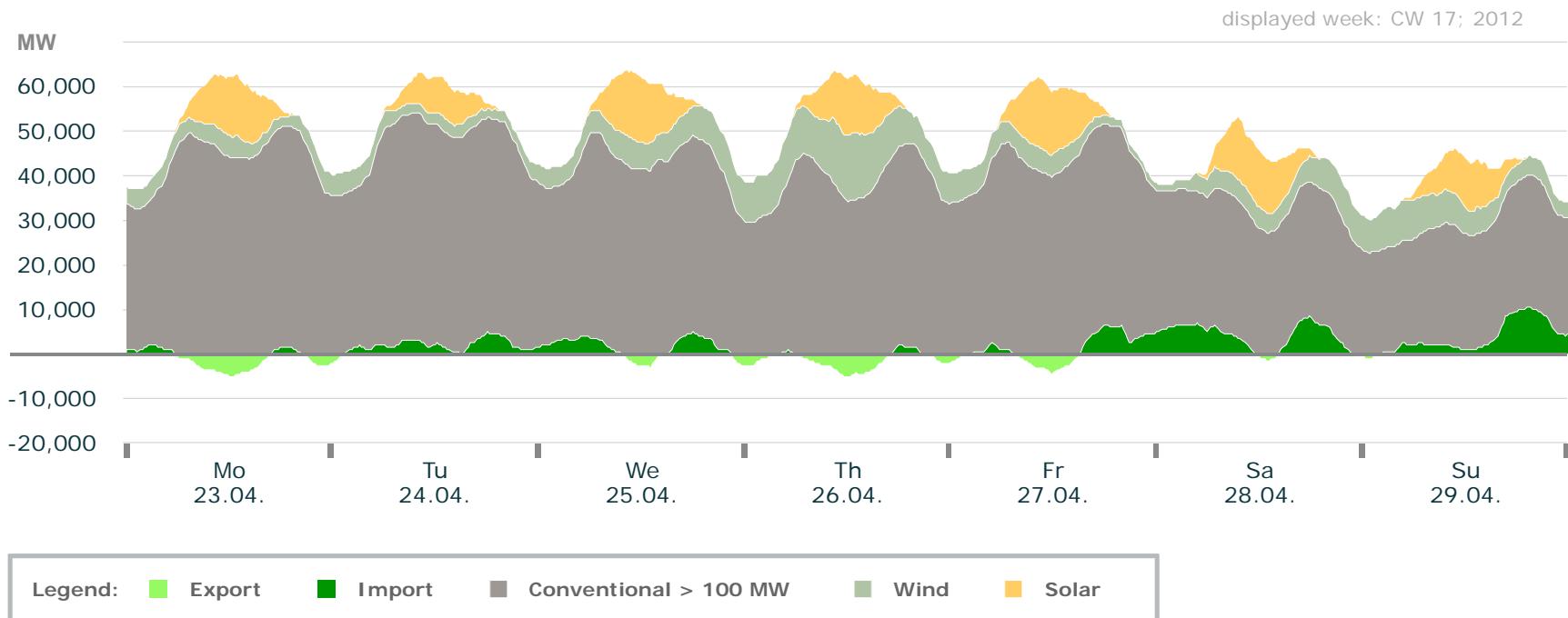
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 17

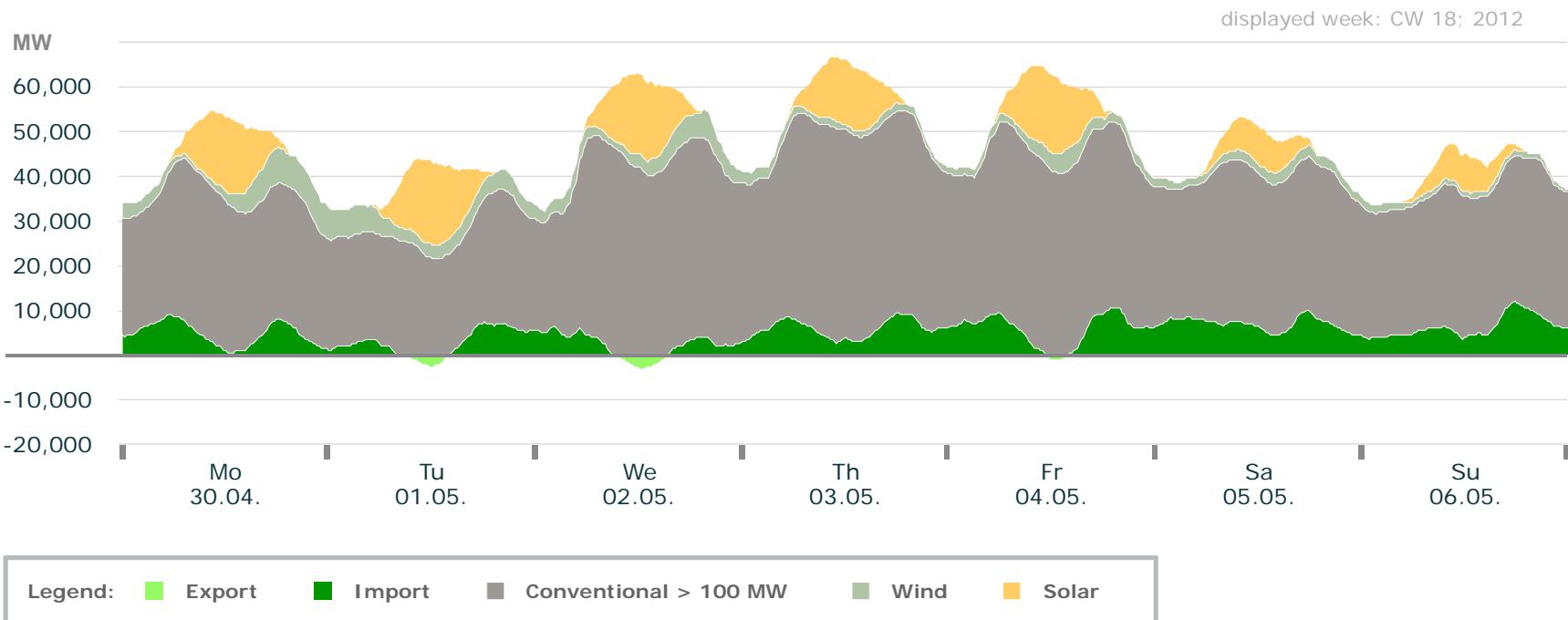
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 18

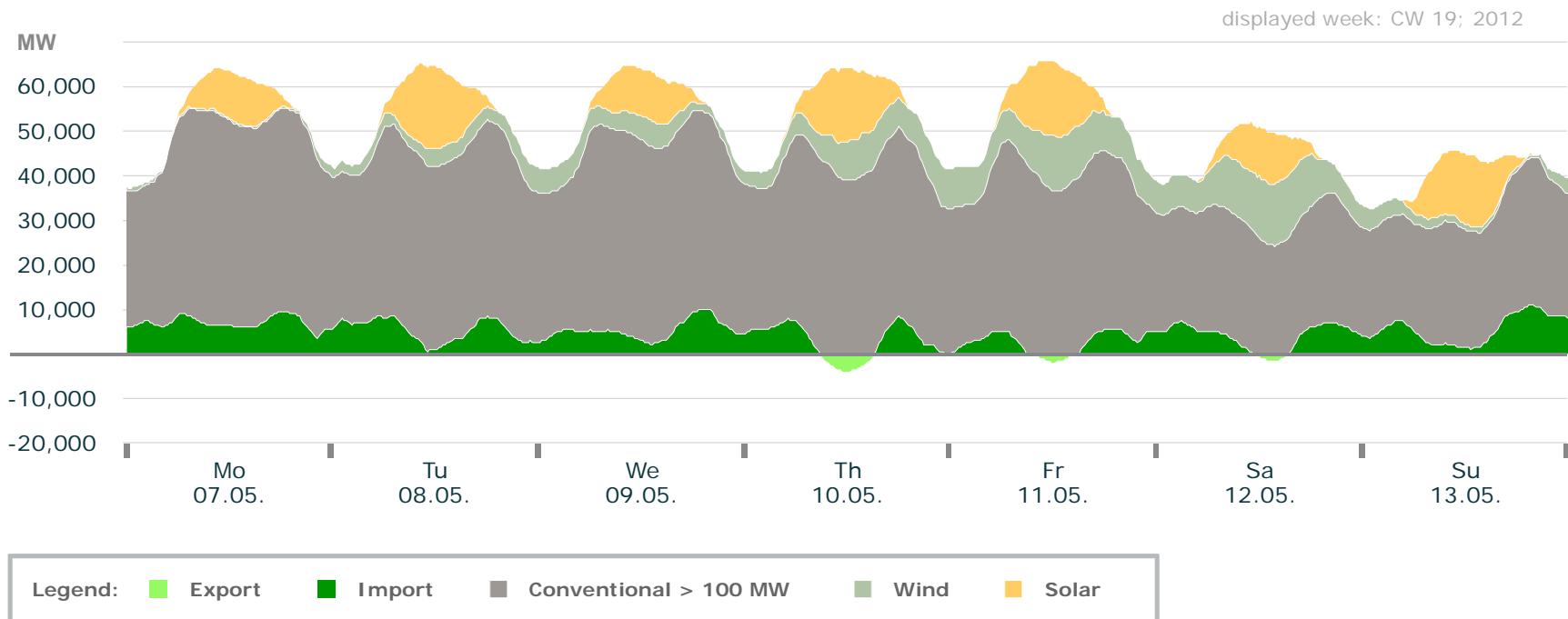
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 19

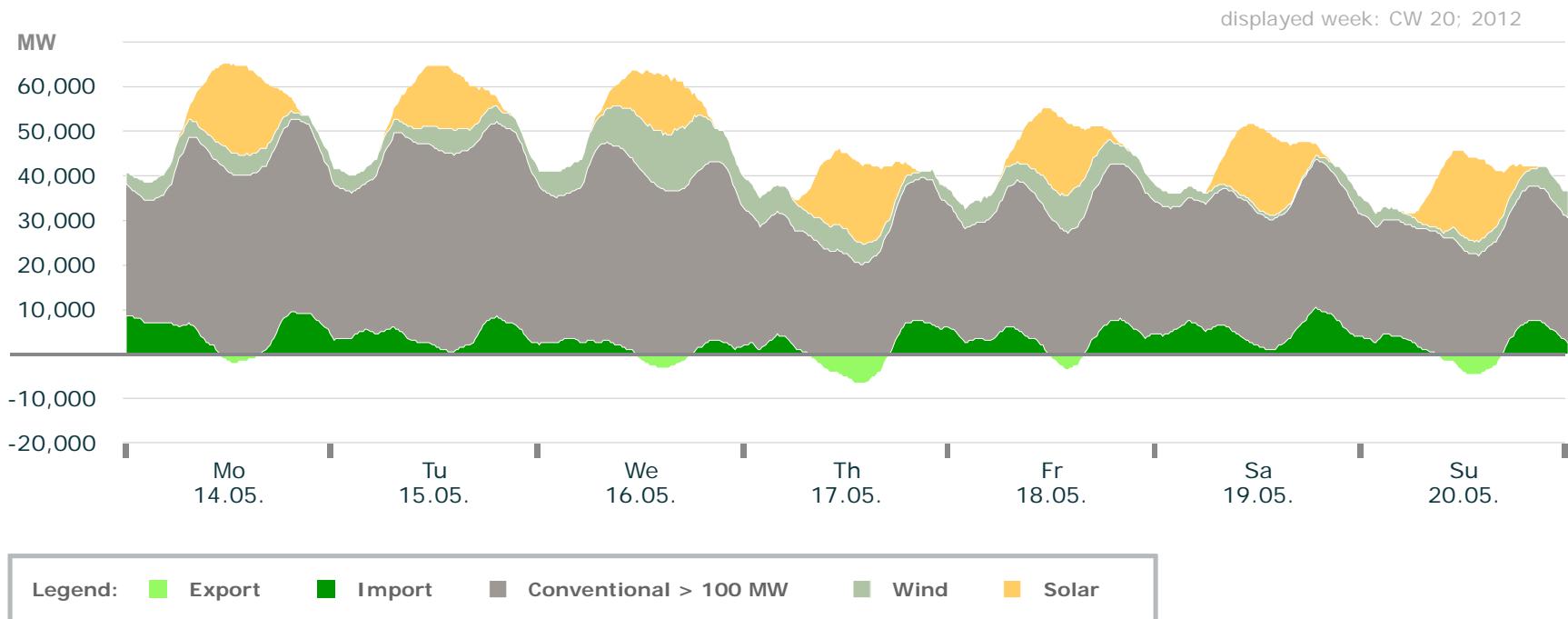
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 20

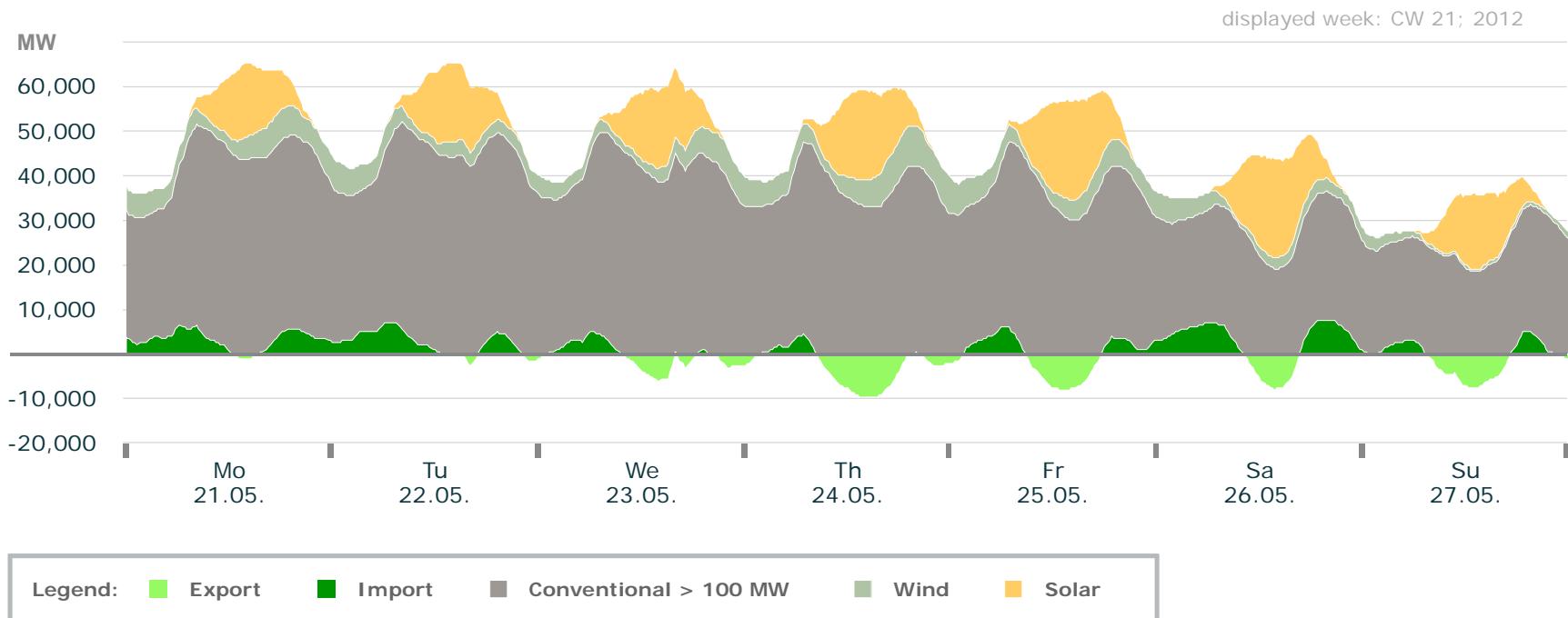
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 21

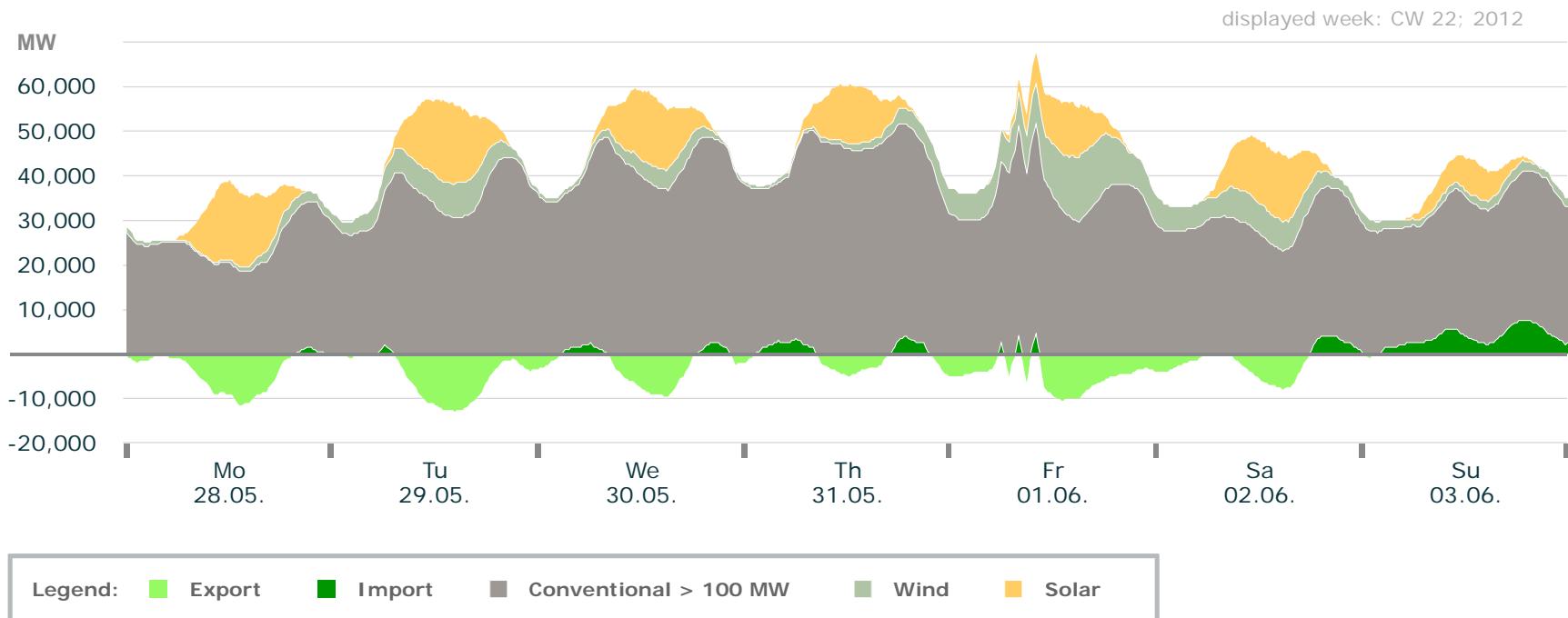
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 22

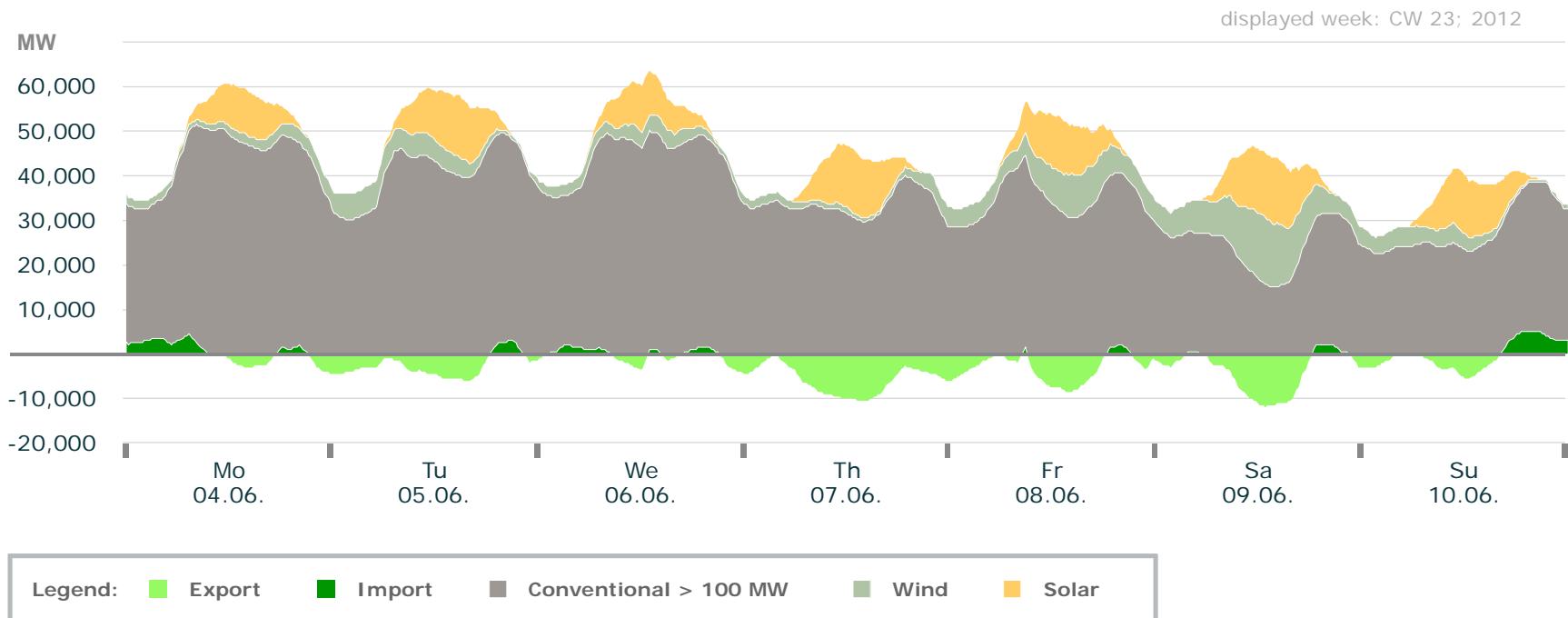
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 23

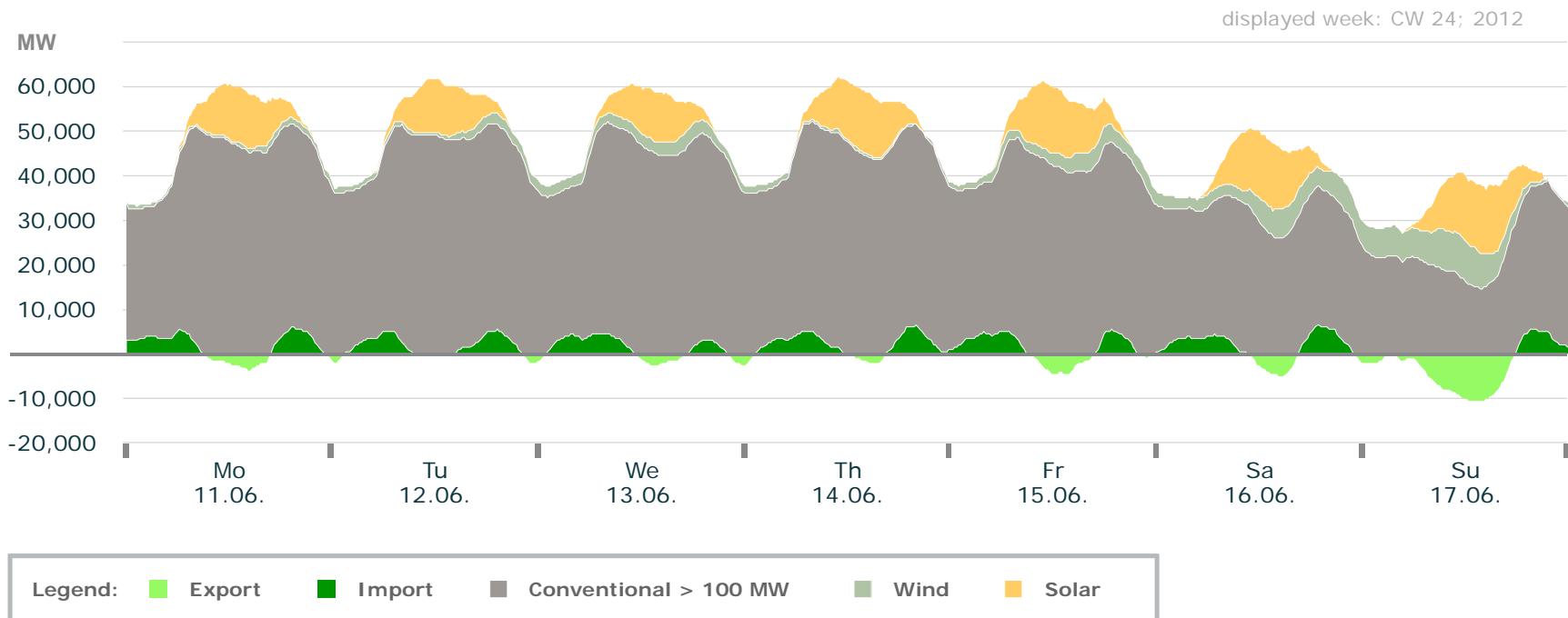
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 24

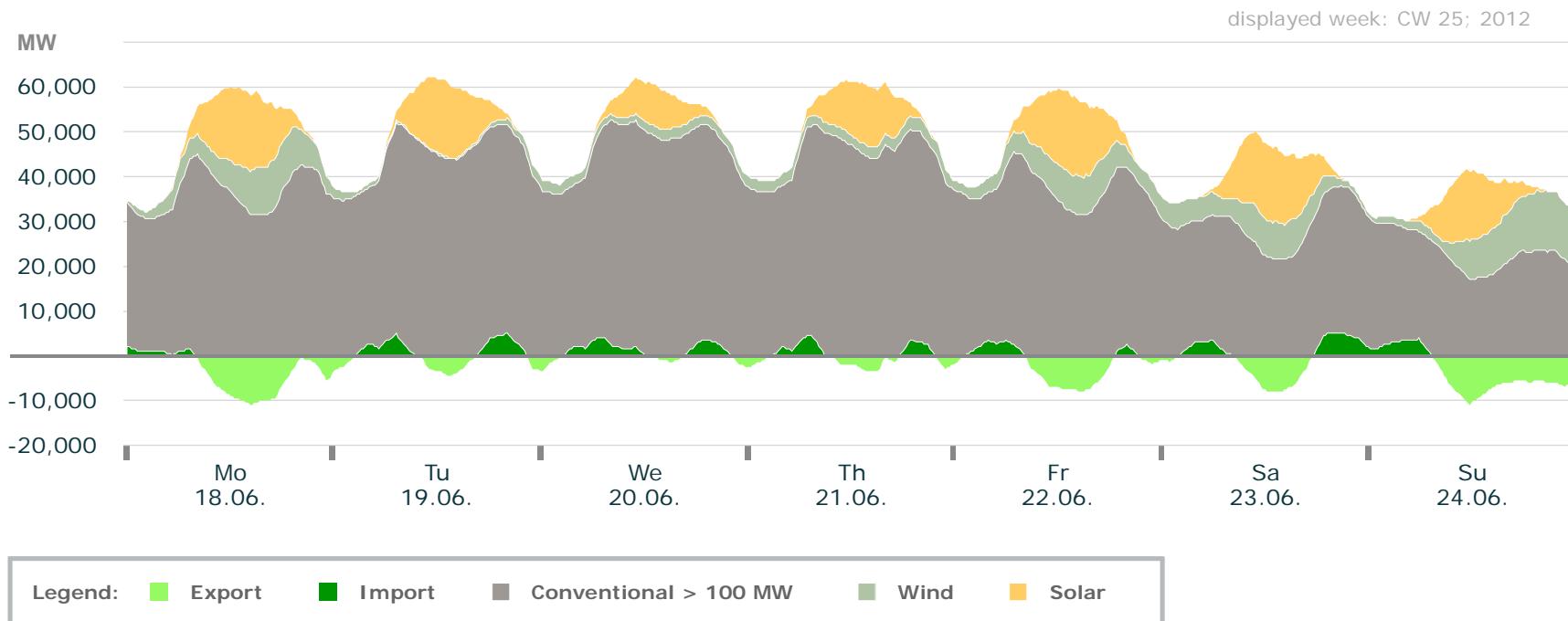
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 25

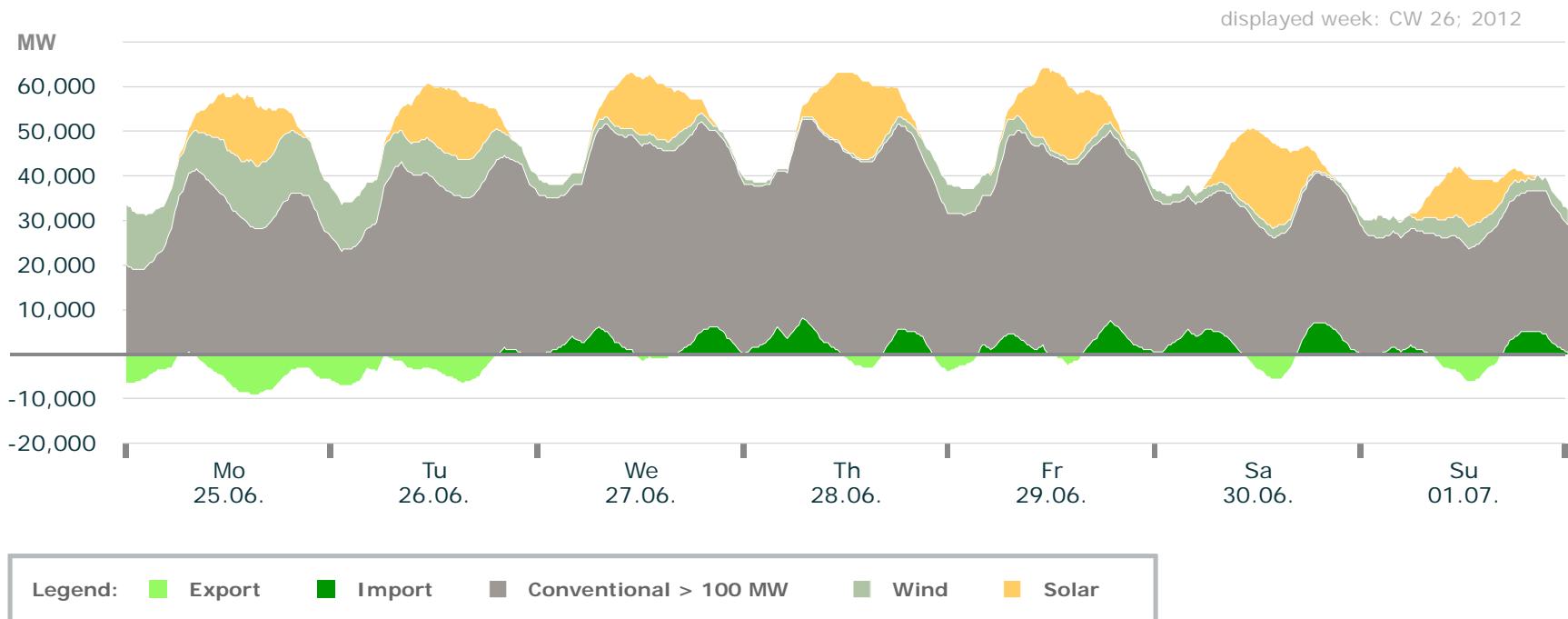
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 26

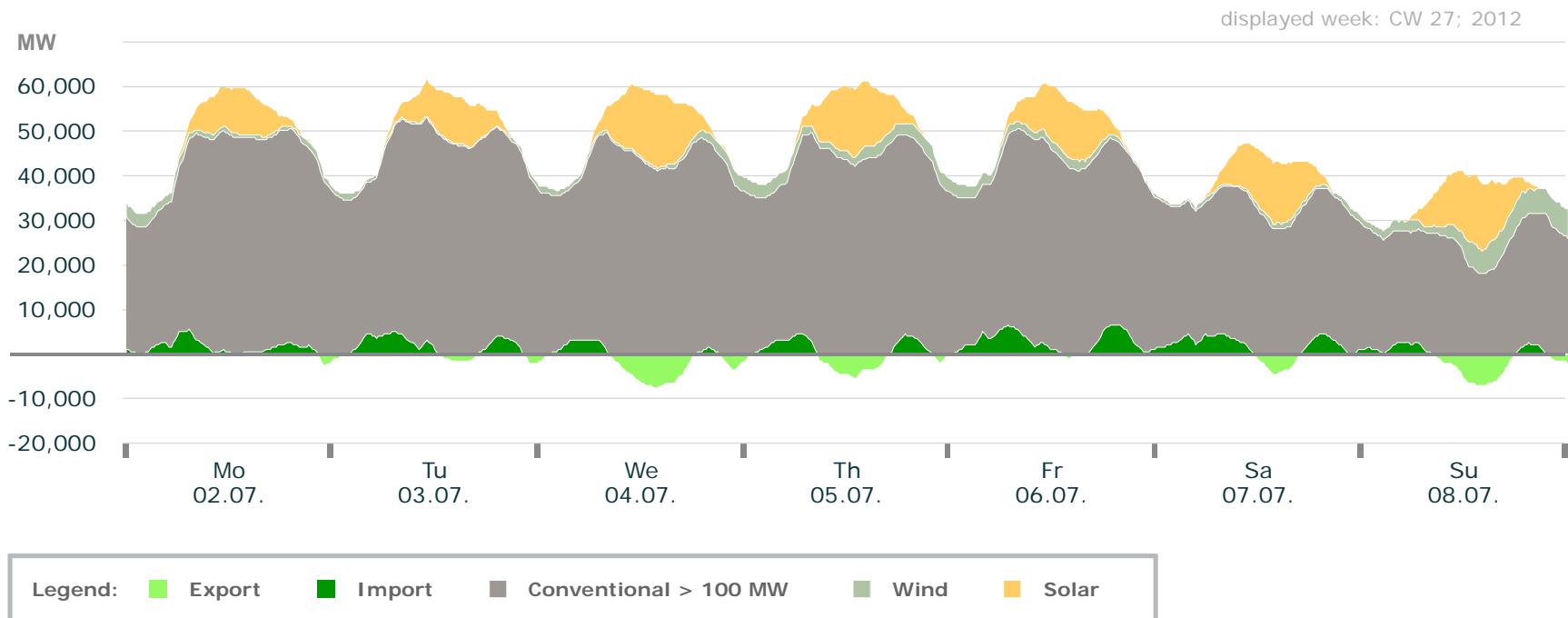
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 27

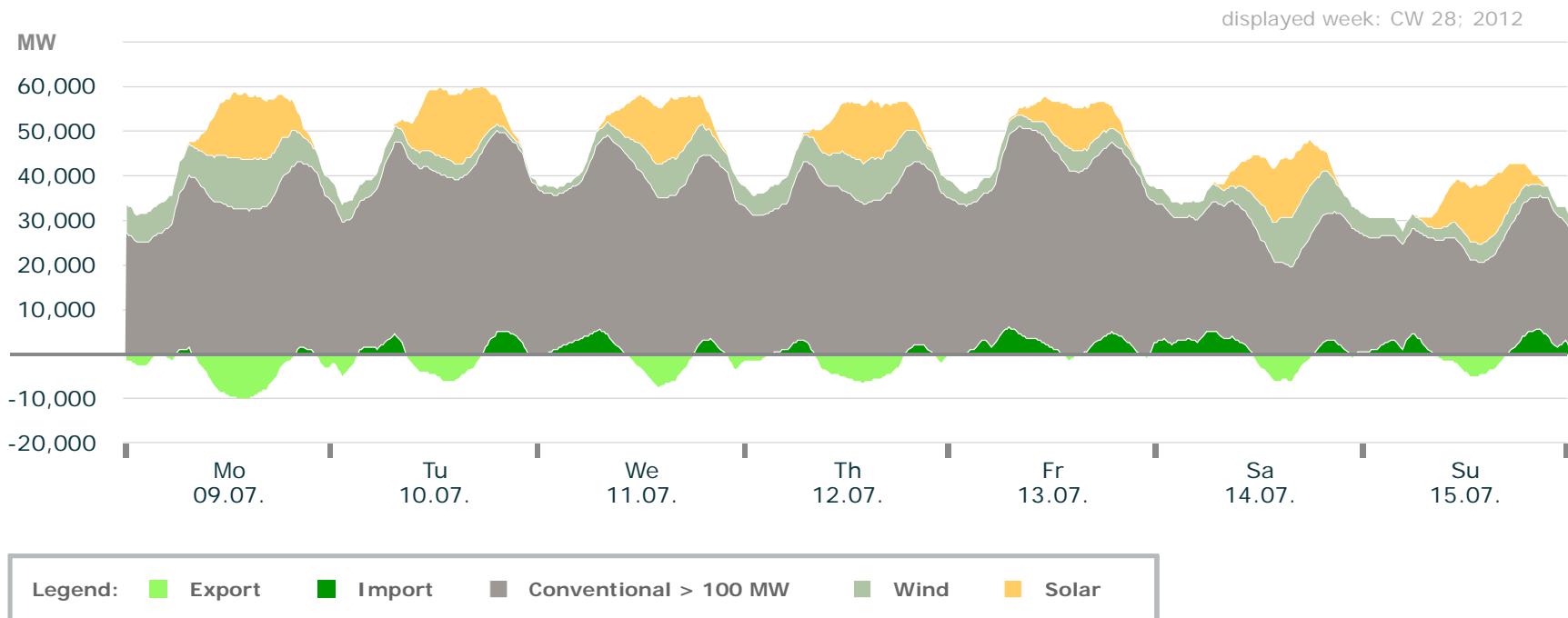
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 28

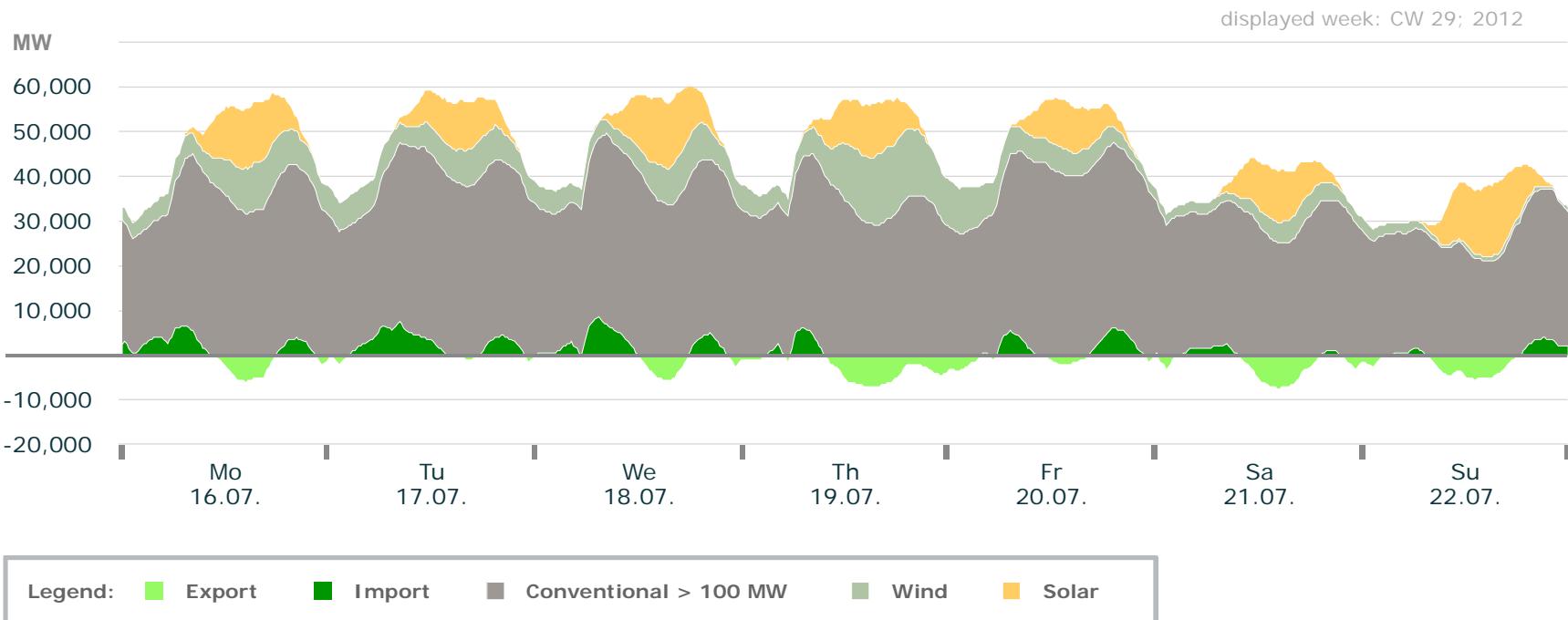
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 29

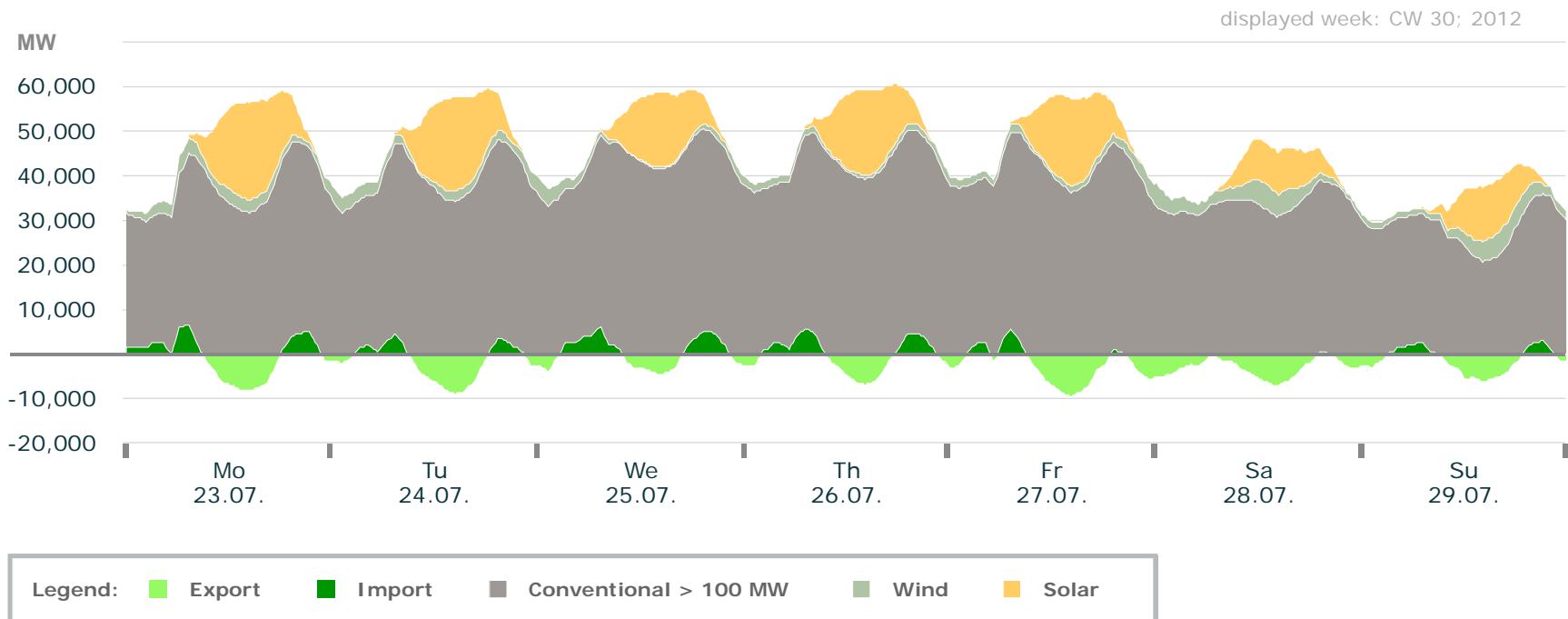
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 30

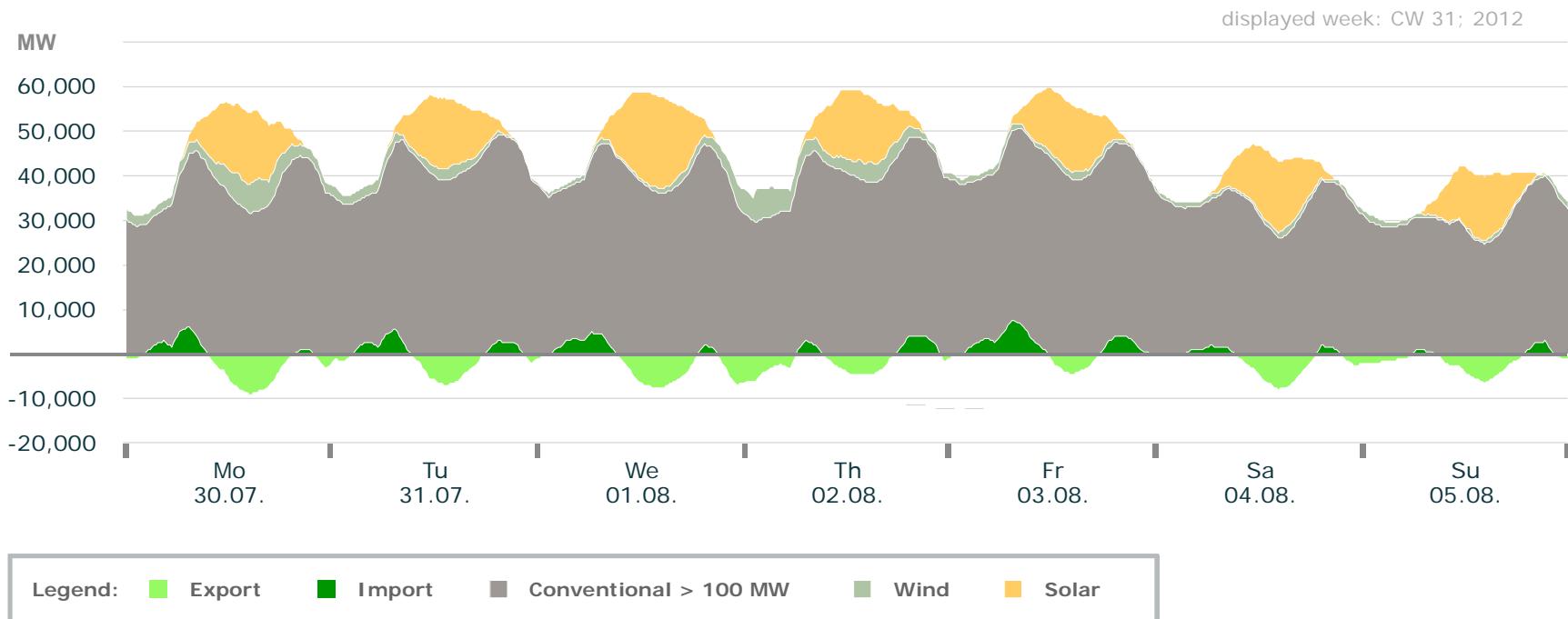
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 31

Actual production



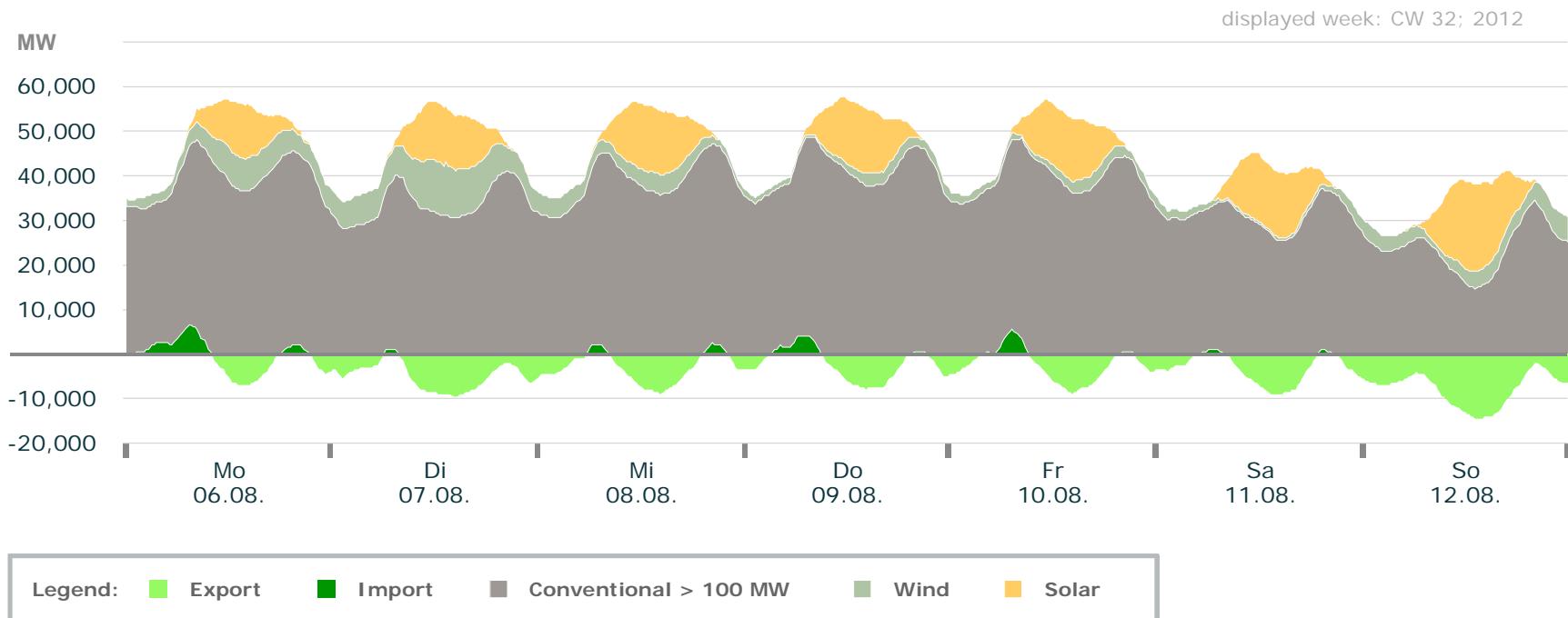
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

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Electricity Production in Germany: Calendar Week 32

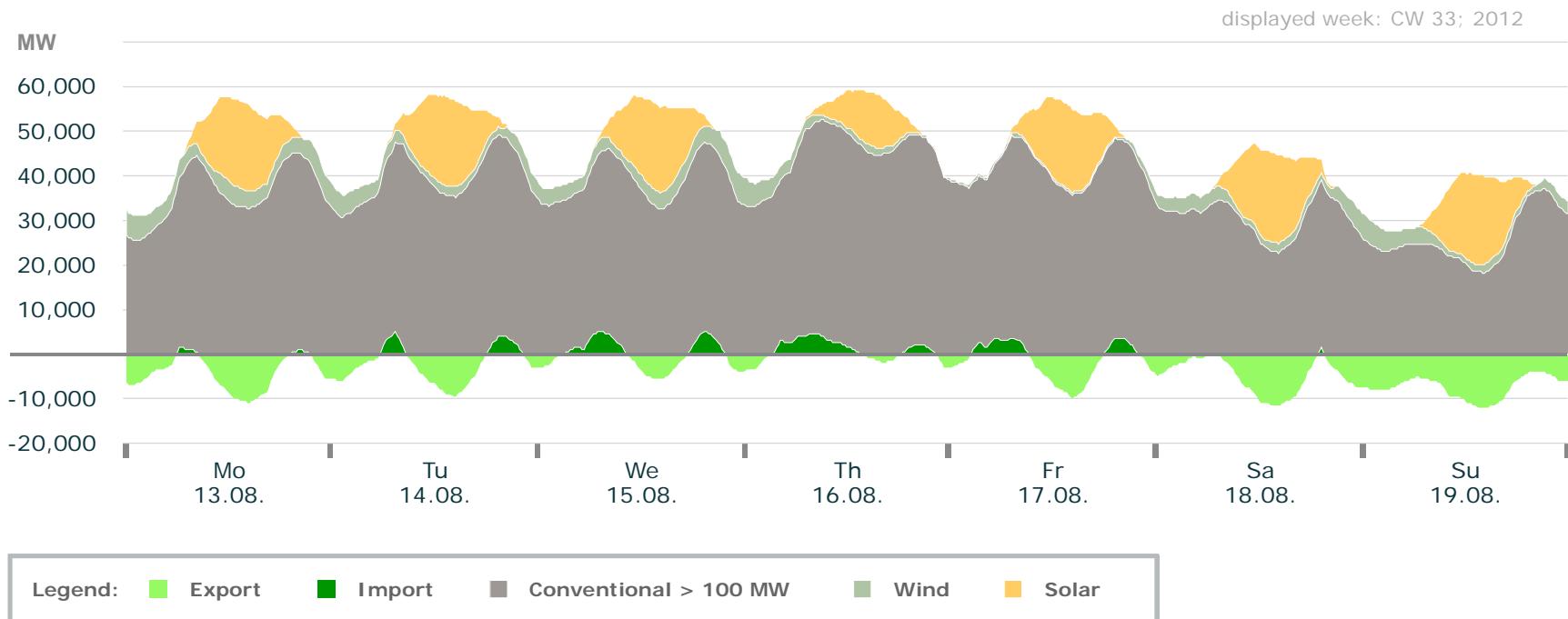
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 33

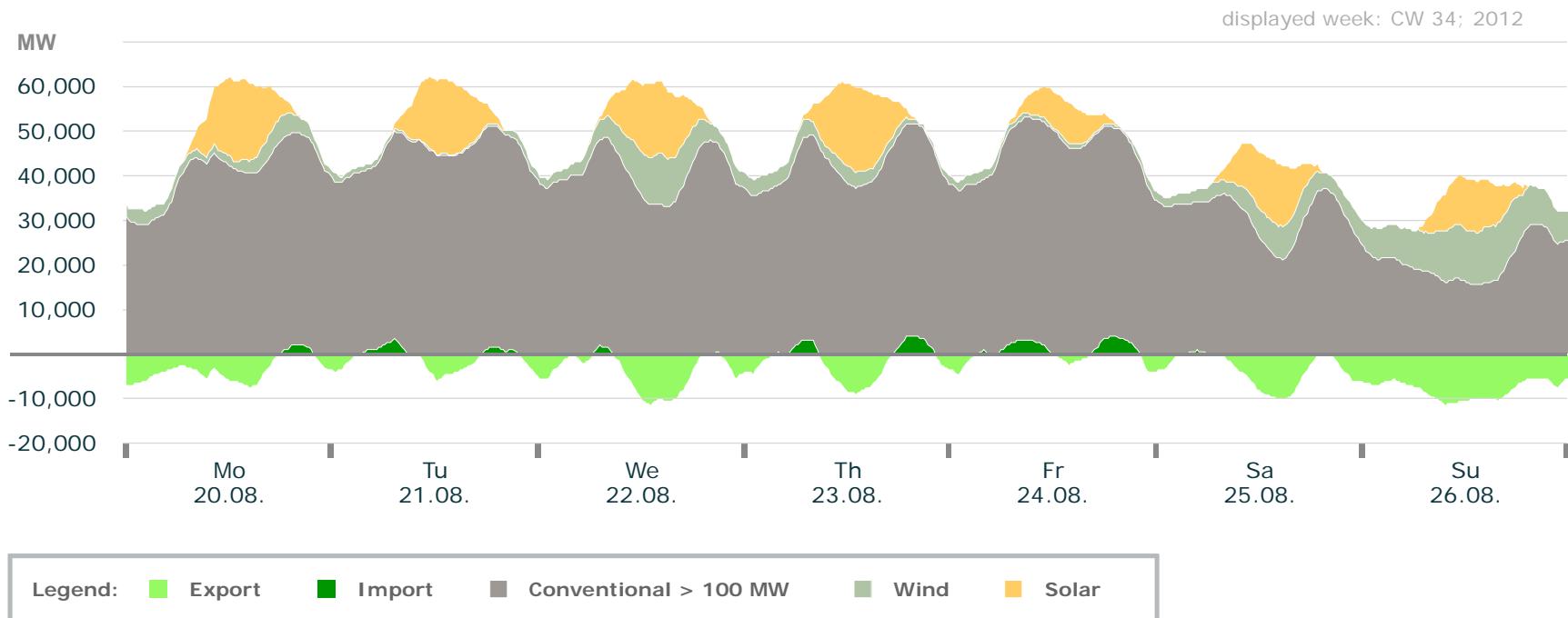
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 34

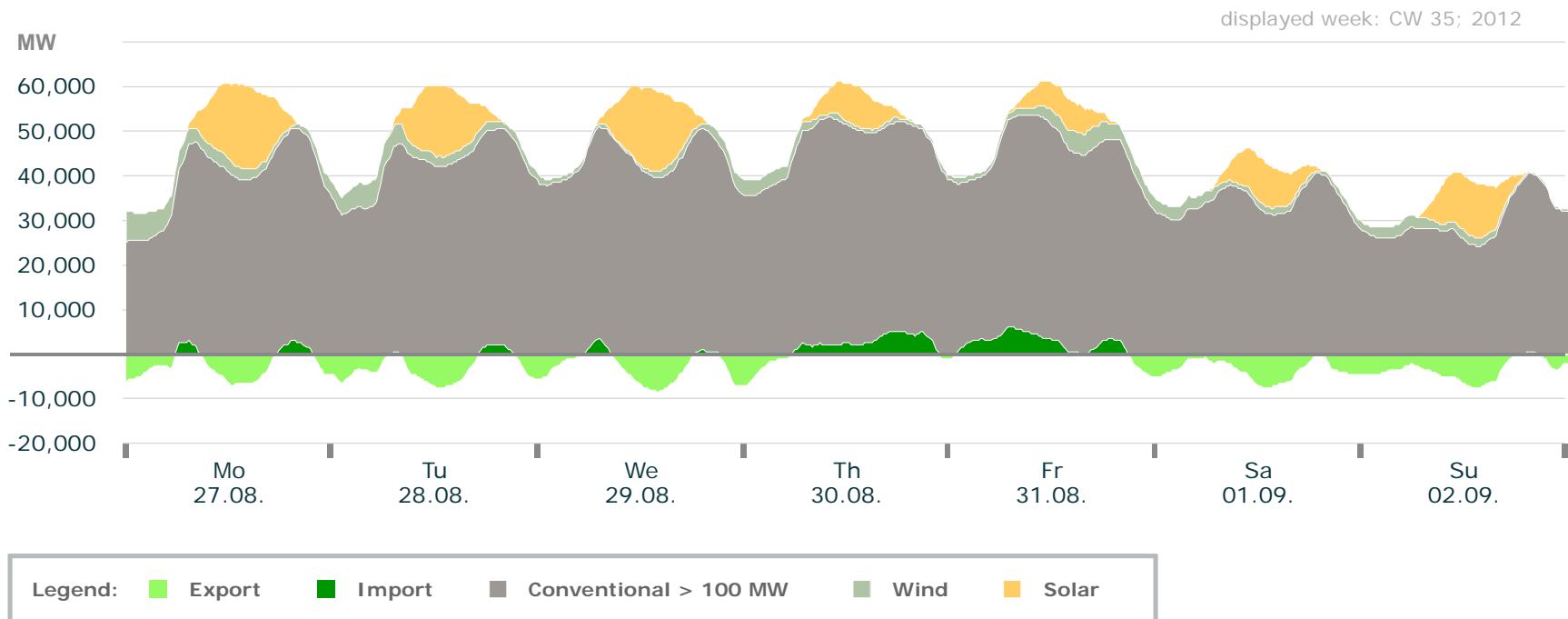
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 35

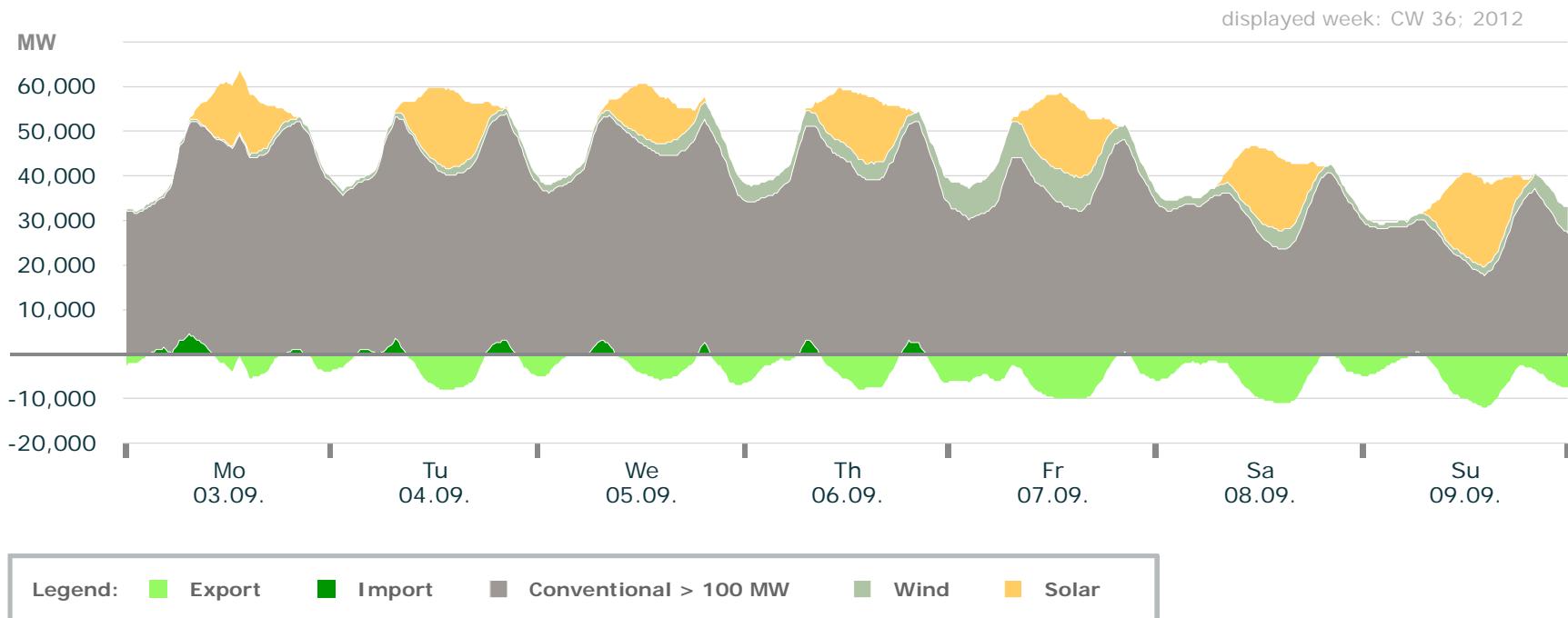
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 36

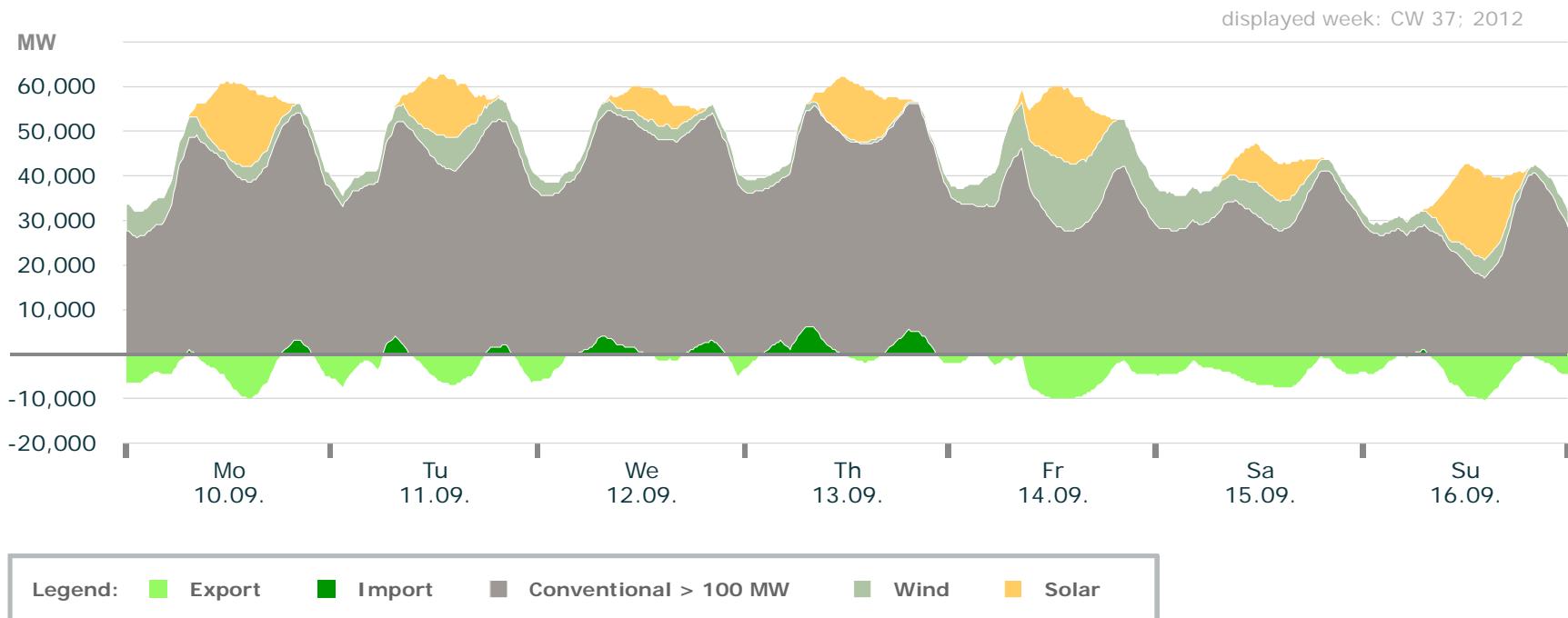
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 37

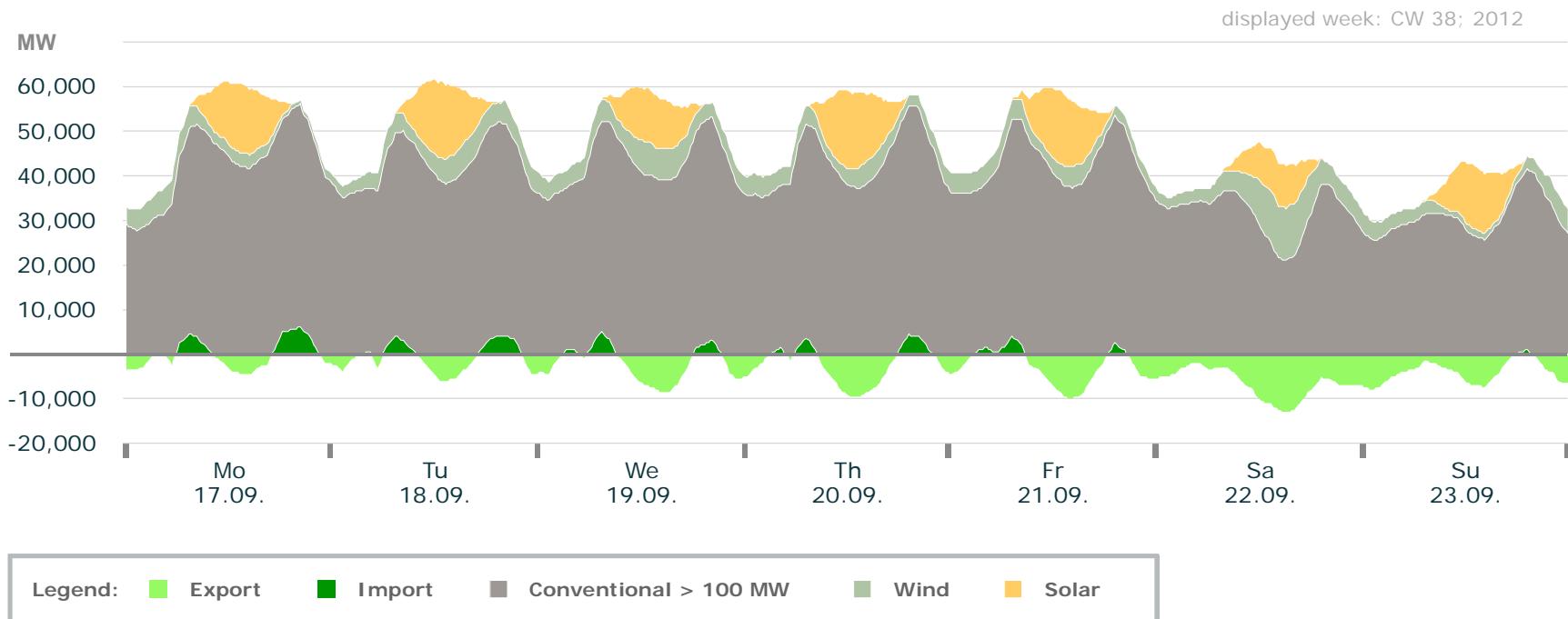
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 38

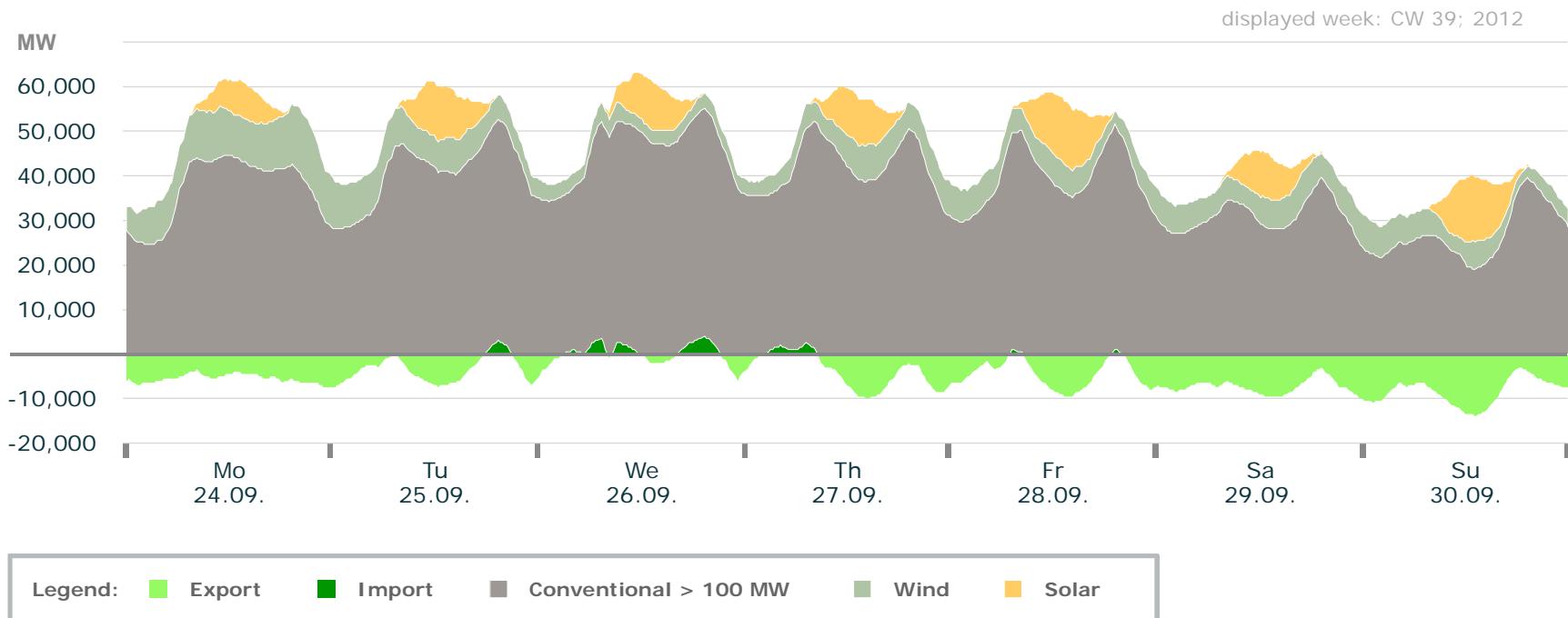
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 39

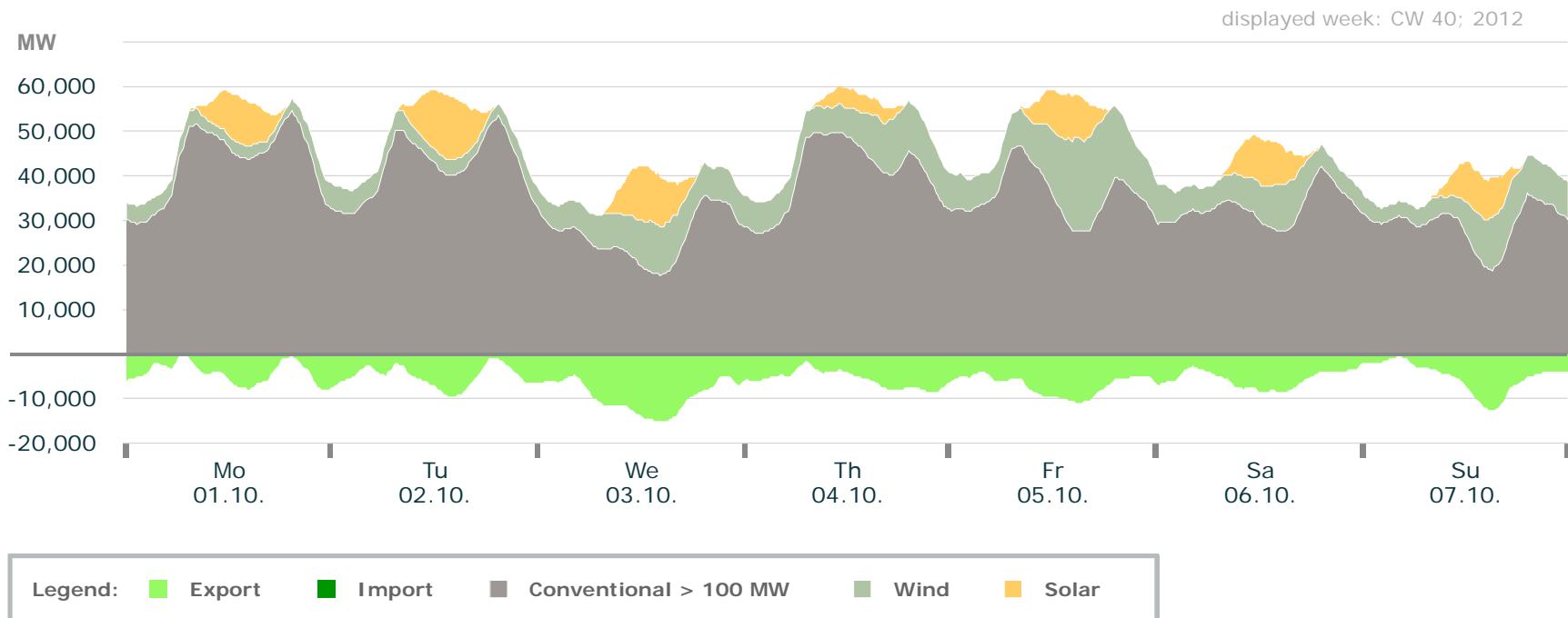
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 40

Actual production

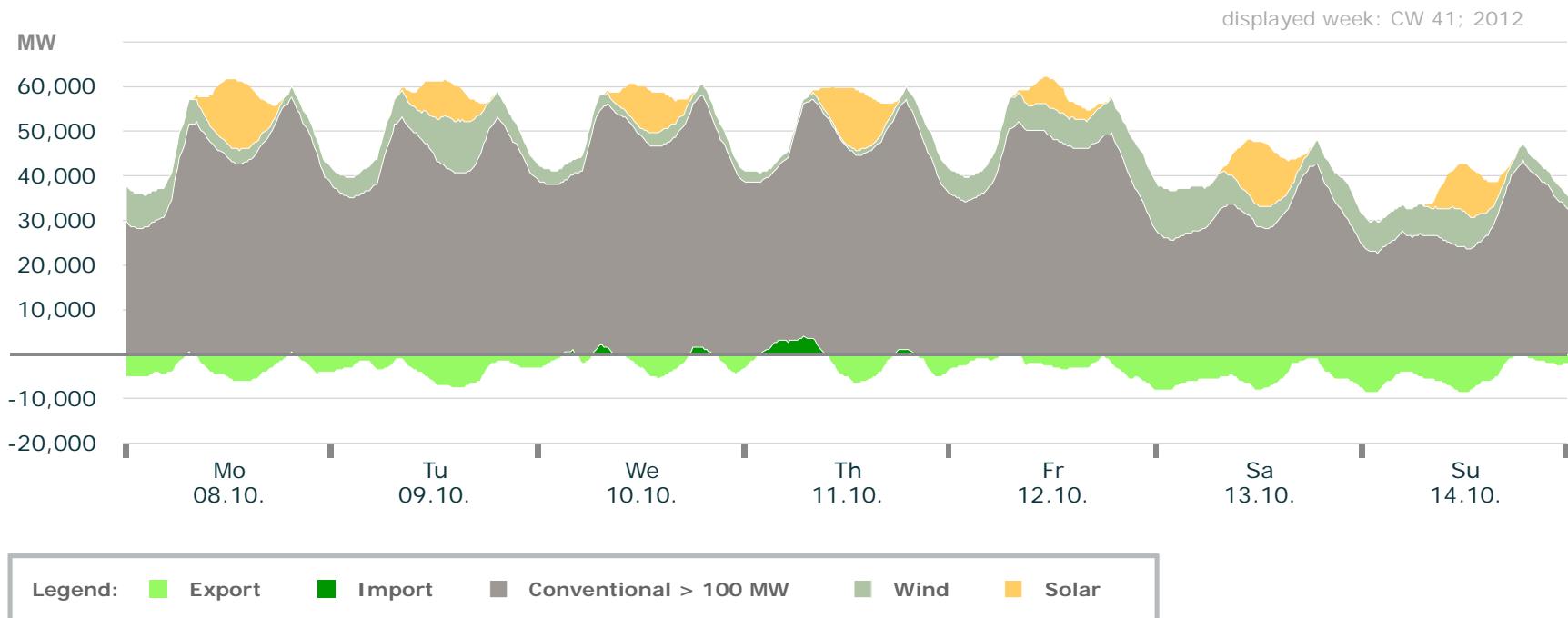


■ No Export, only Import in CW 40

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 41

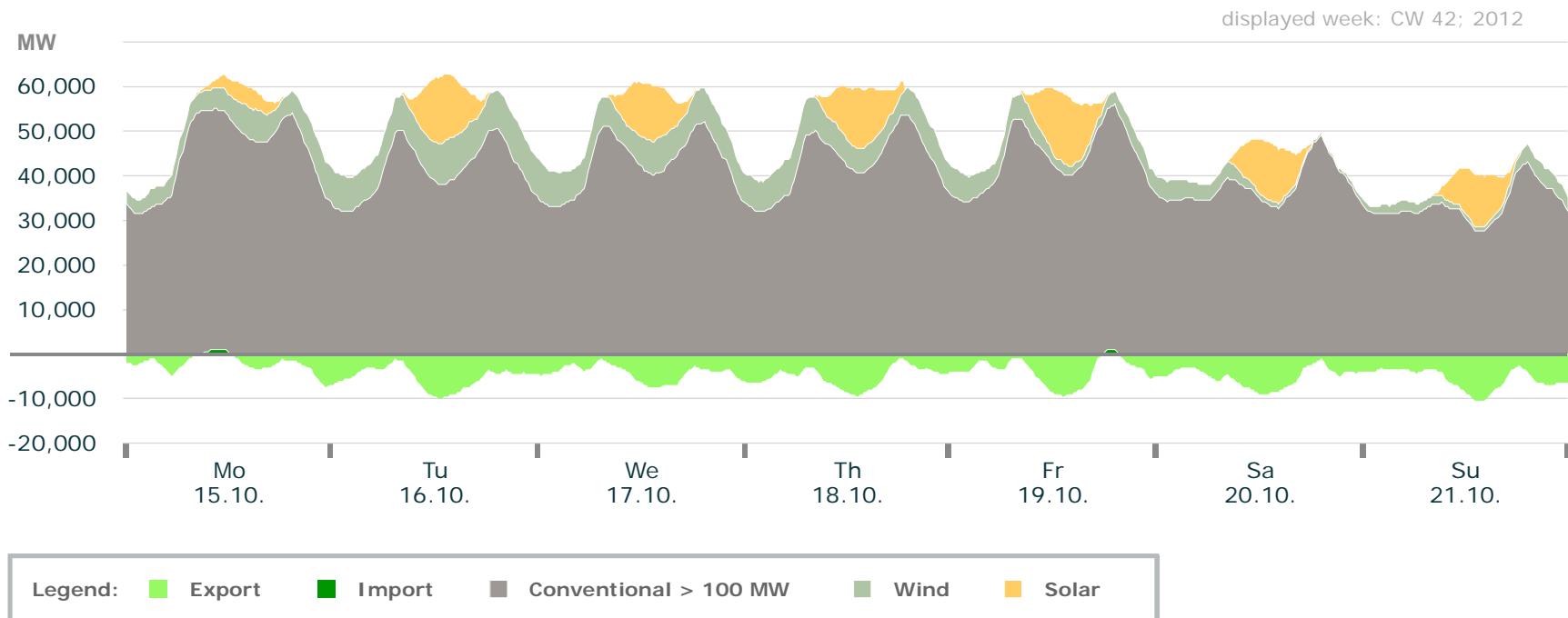
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 42

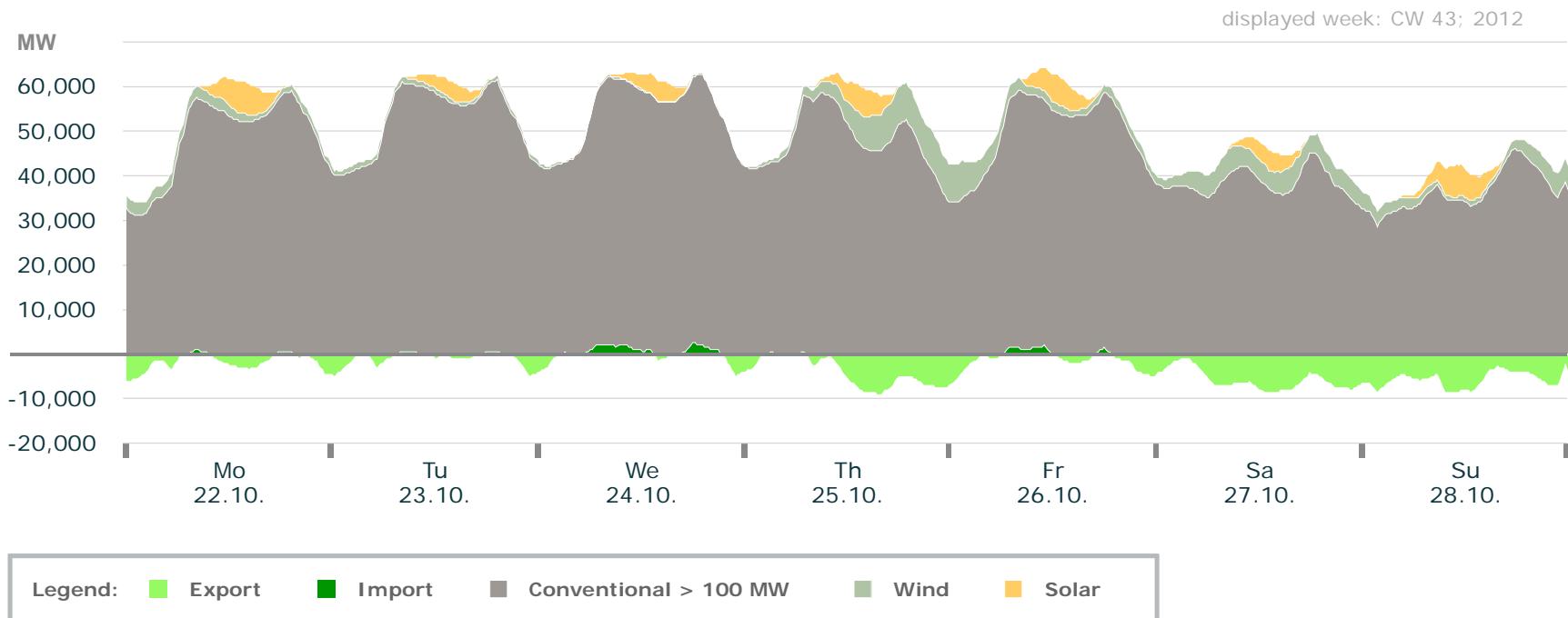
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 43

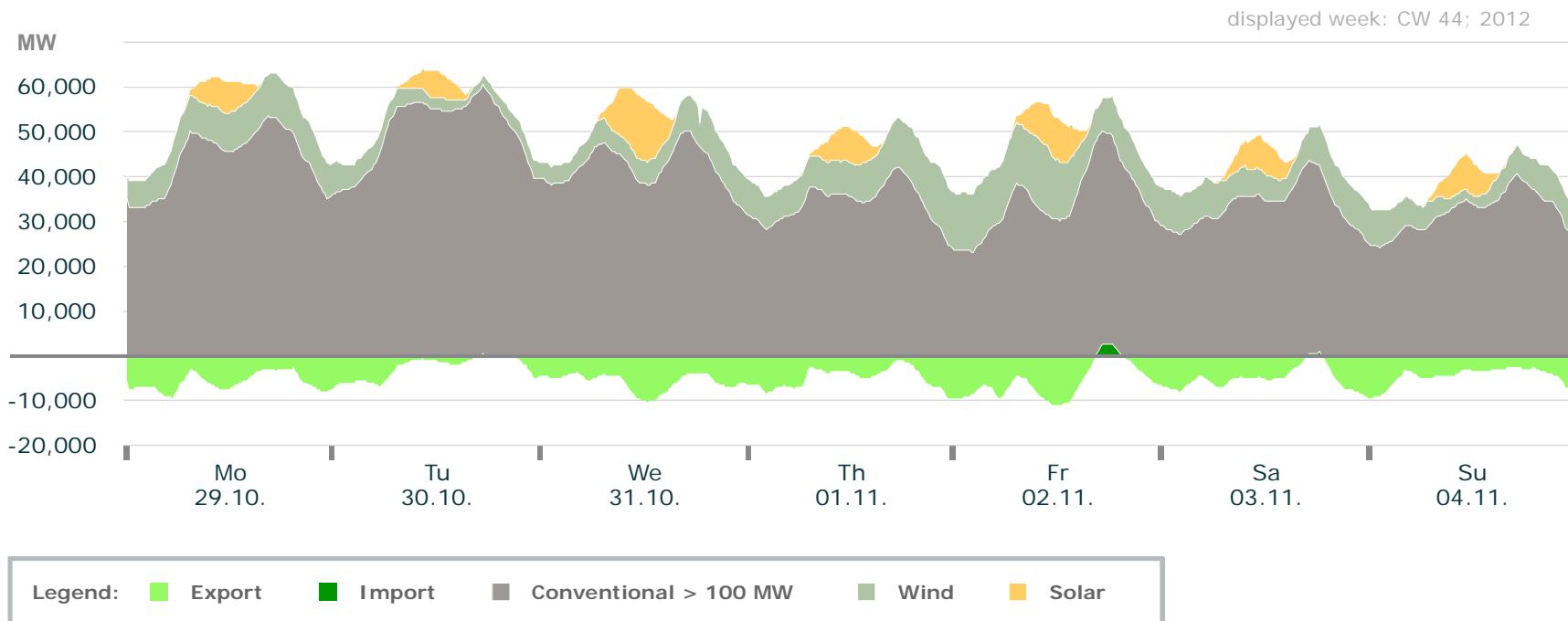
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 44

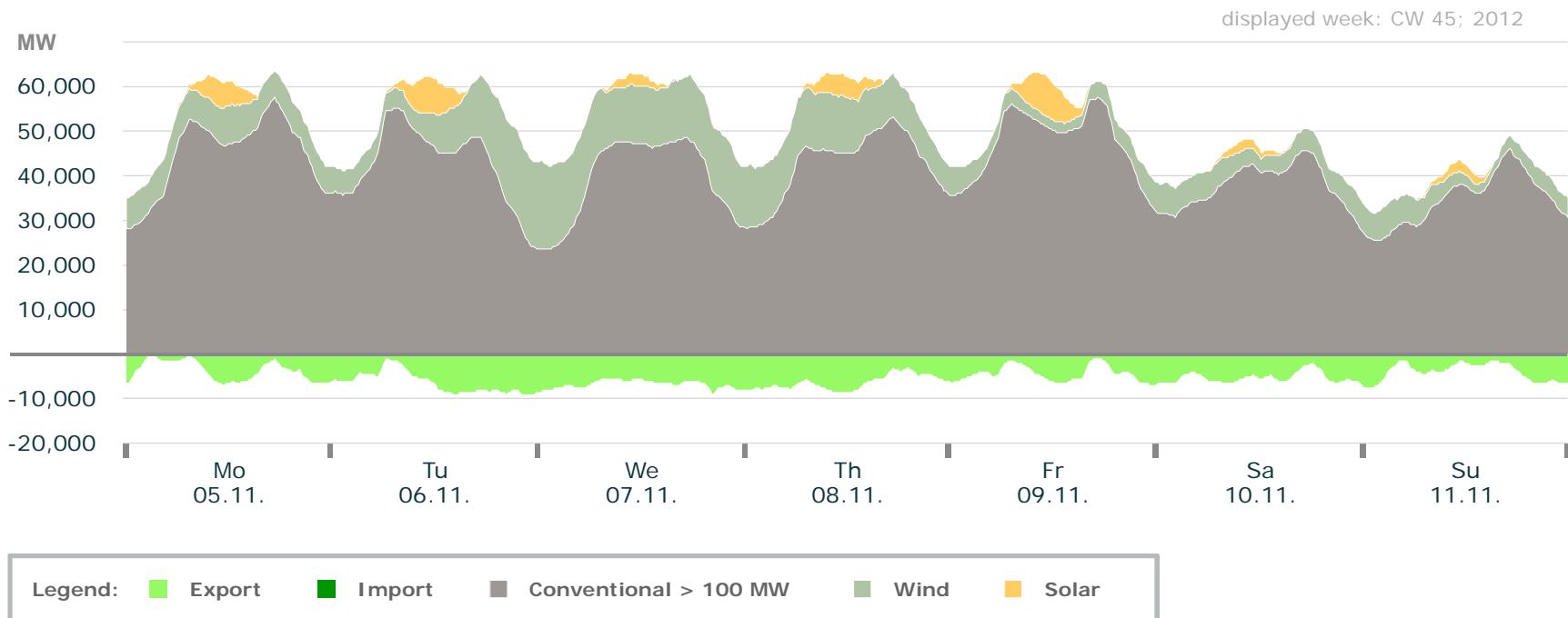
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 45

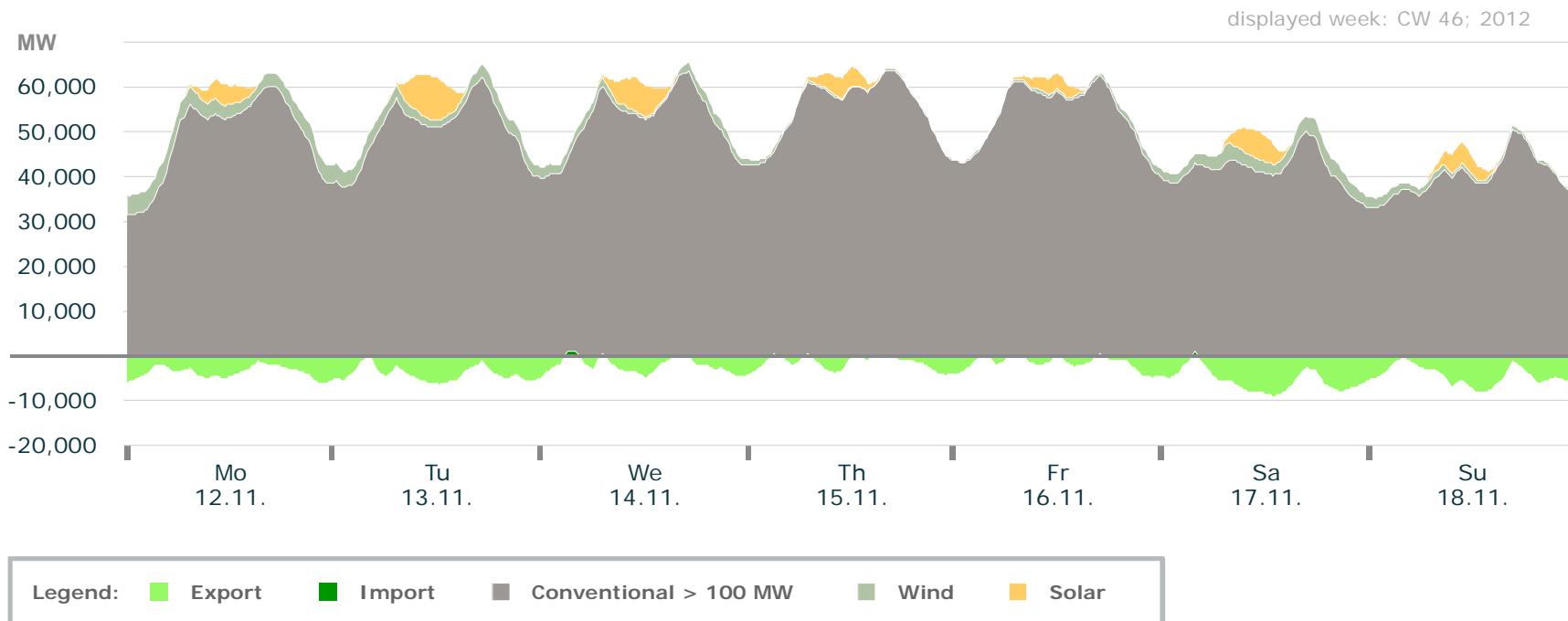
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 46

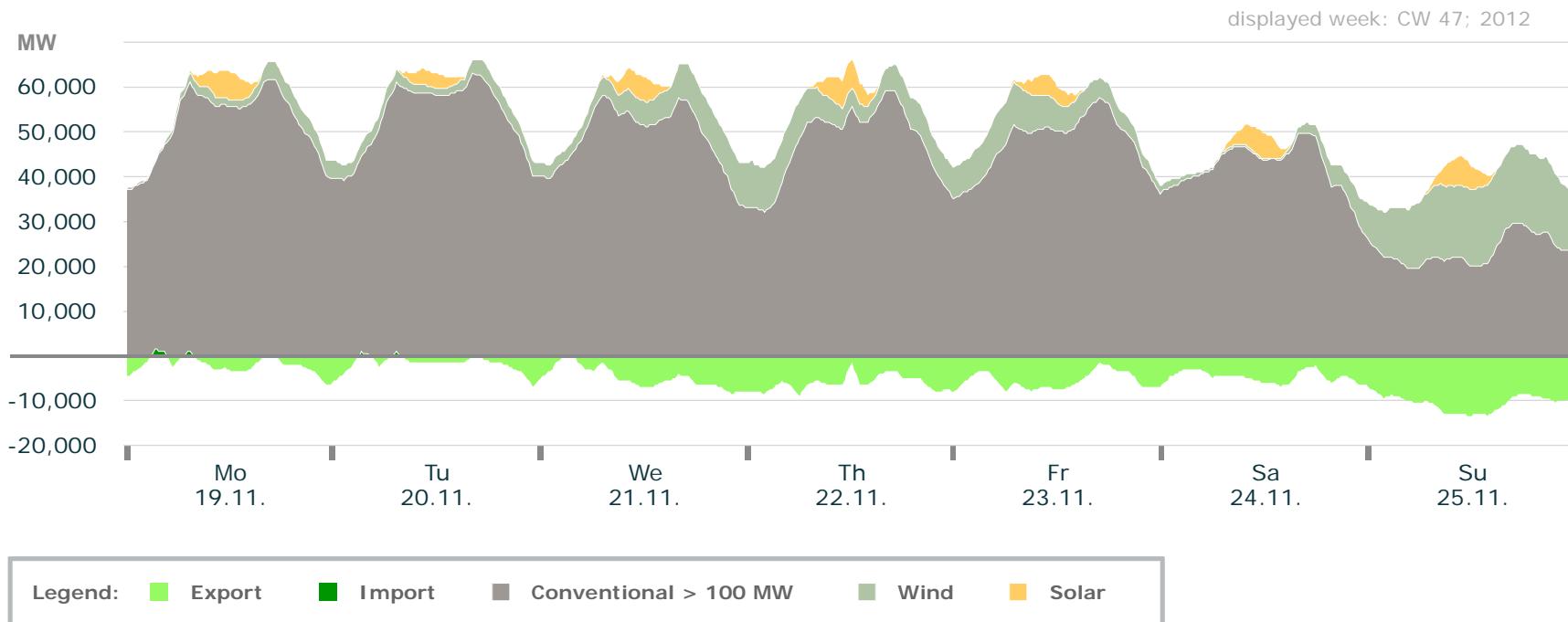
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 47

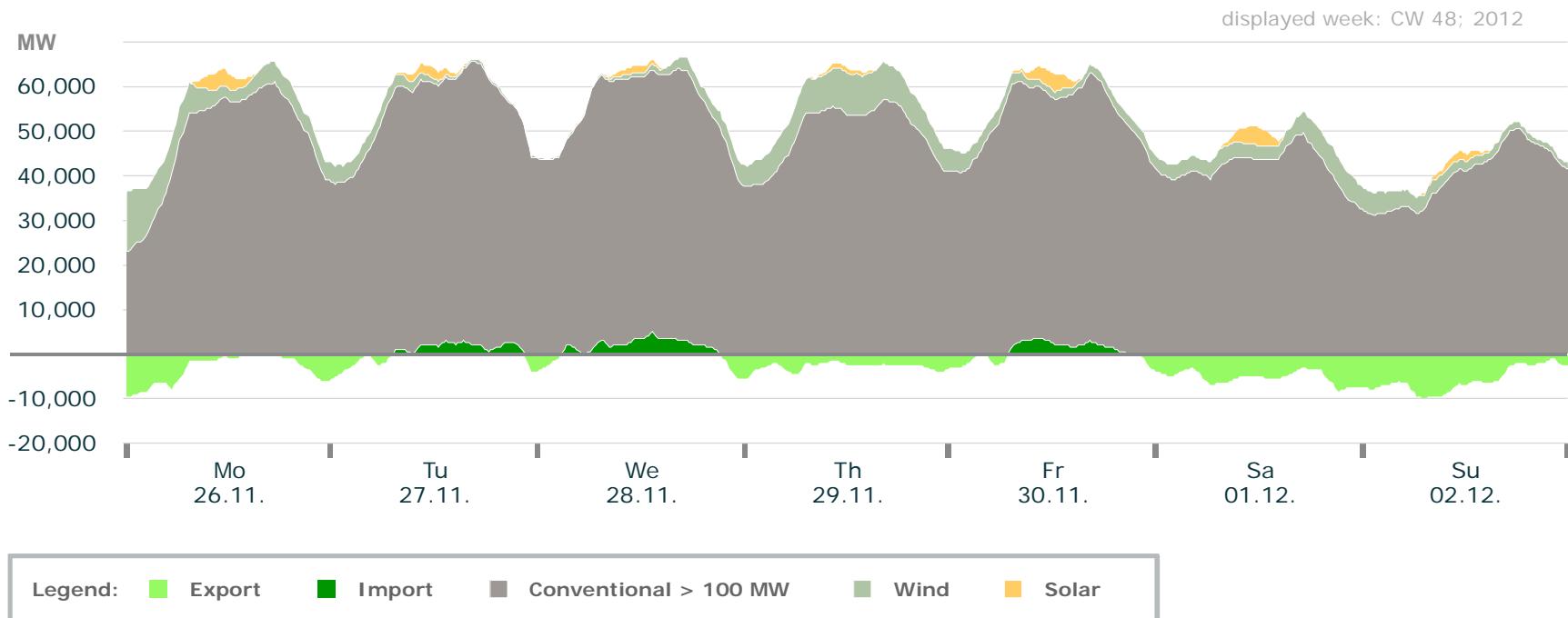
Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 48

Actual production

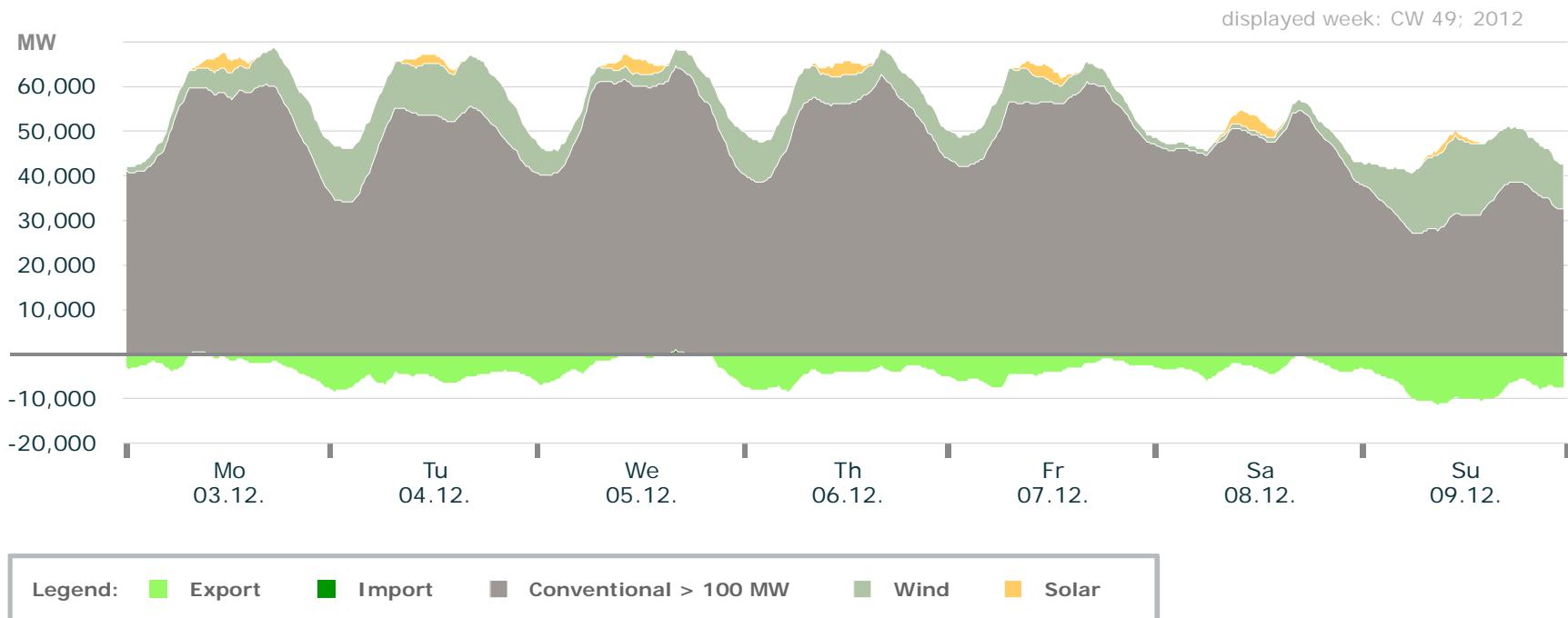


- Data of import/export to Switzerland is missing from 02.12.2012, 13:00 to 10.12.2012, 11:00!

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 49

Actual production

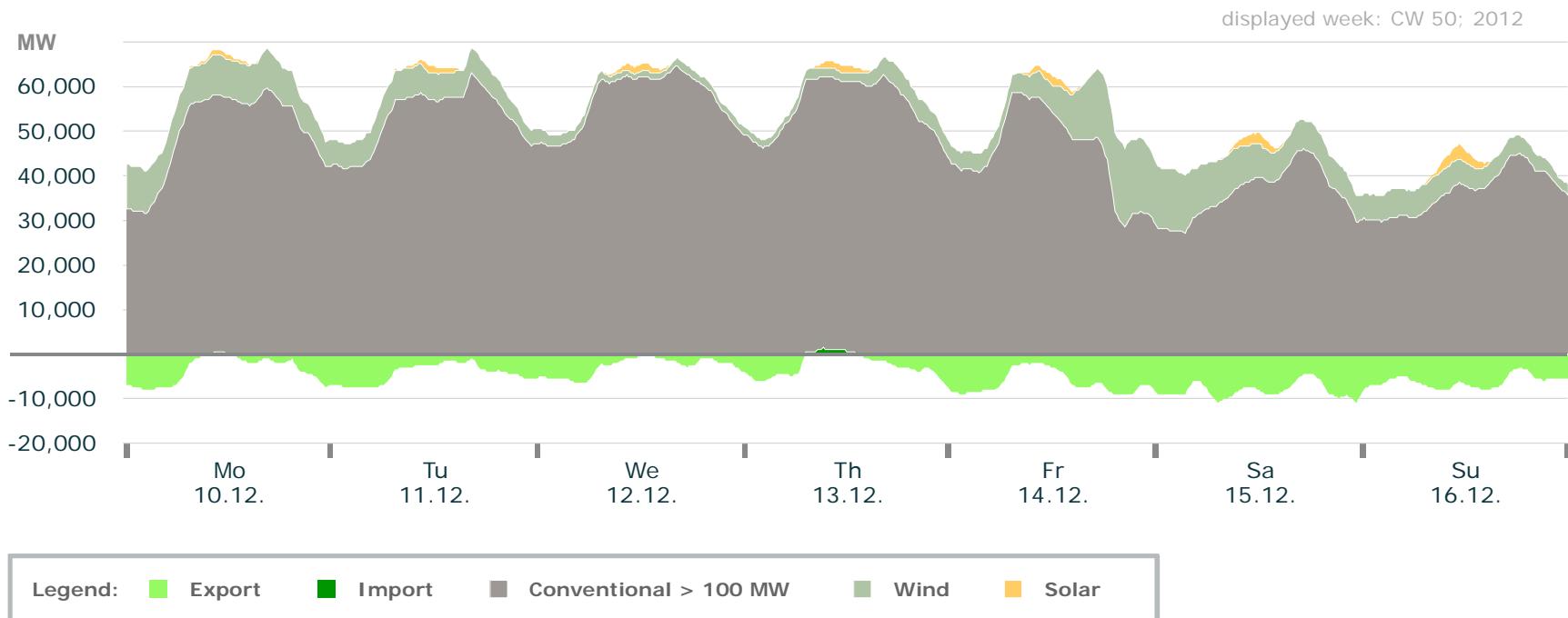


- Data of import/export to Switzerland is missing from 02.12.2012, 13:00 to 10.12.2012, 11:00!

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 50

Actual production

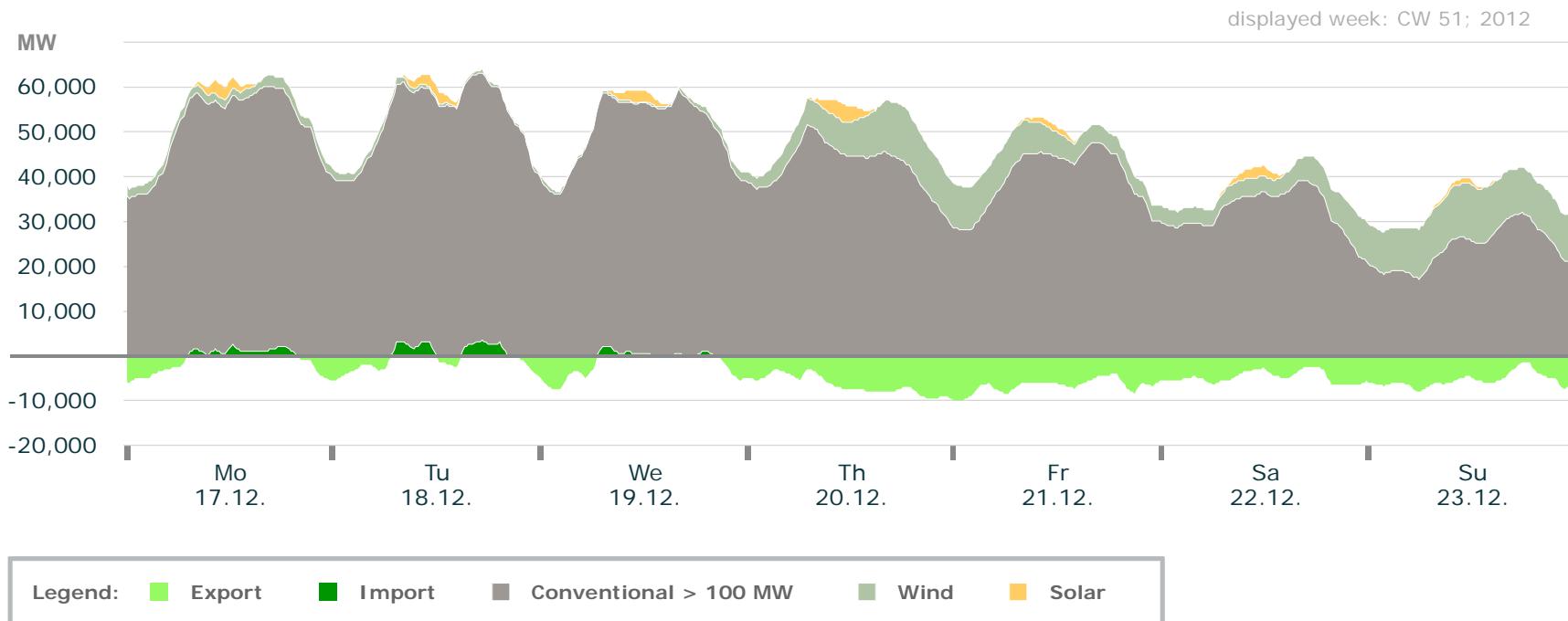


- Data of import/export to Switzerland is missing from 02.12.2012, 13:00 to 10.12.2012, 11:00!

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 51

Actual production



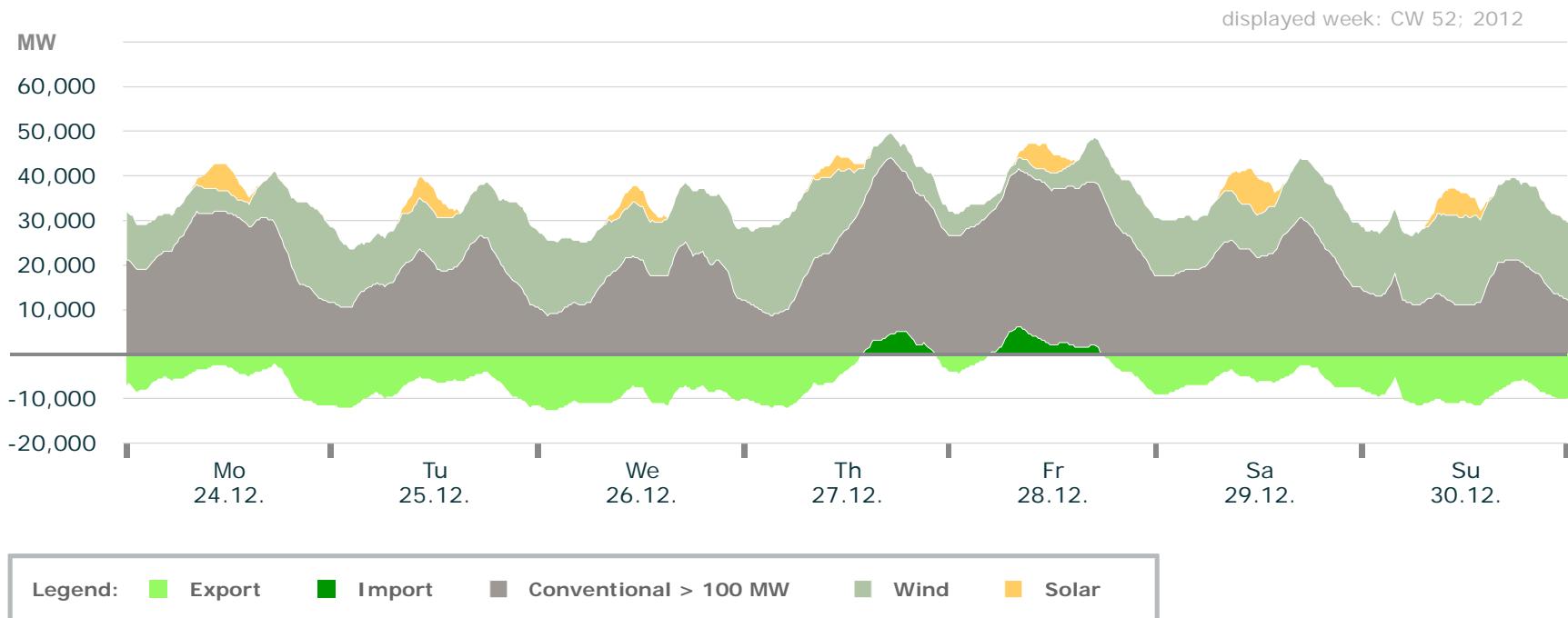
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

200

© Fraunhofer ISE

Electricity Production in Germany: Calendar Week 52

Actual production



Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

201

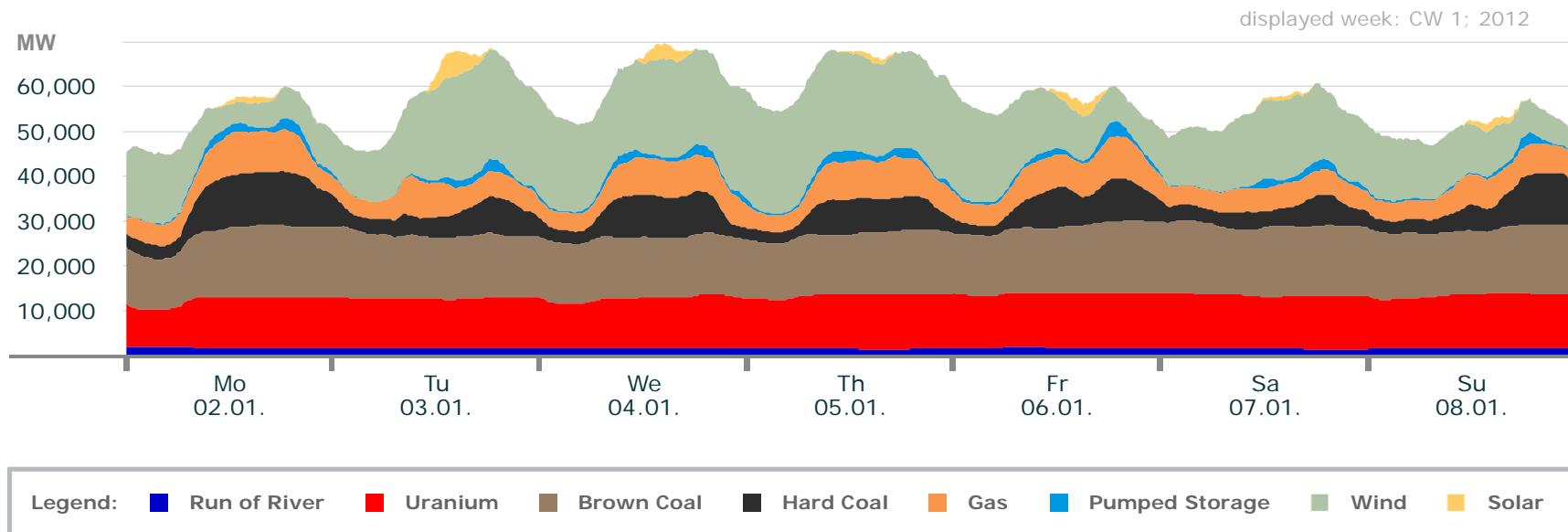
© Fraunhofer ISE

AGENDA

- Annual energies
 - Monthly energies
 - Weekly energies
 - Daily energies
 - Annual power curves
 - Monthly power curves
 - **Weekly power curves**
 - Weekly power curves for conventional, wind and solar
 - Weekly power curves with import and export
 - **Detailed weekly power curves**
 - Exemplary daily power curves
-

Electricity Production in Germany: Calendar Week 1

Actual production

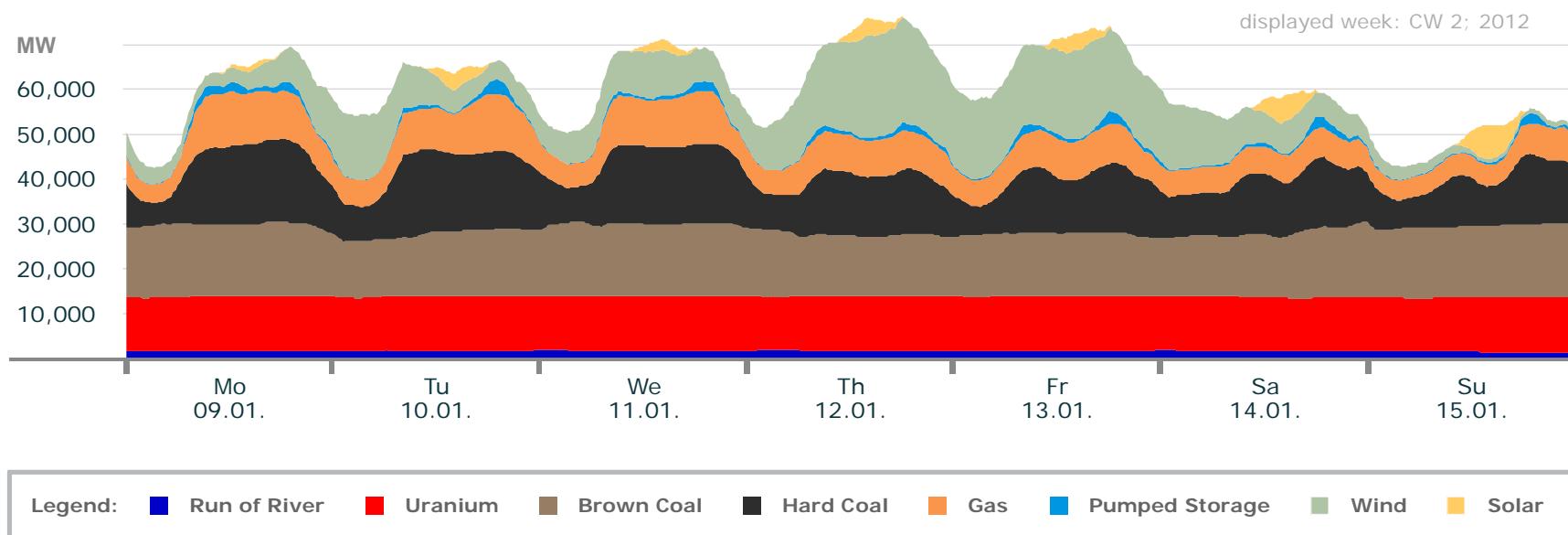


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.6	8.3	11.3	2.2	3.7	0	4.1	0
max. power (GW)	2.2	12.2	16.3	12.0	9.5	3.4	24.1	5.6
weekly energy (TWh)	0.3	1.9	2.4	1.0	1.0	0.17	2.6	0.08

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 2

Actual production

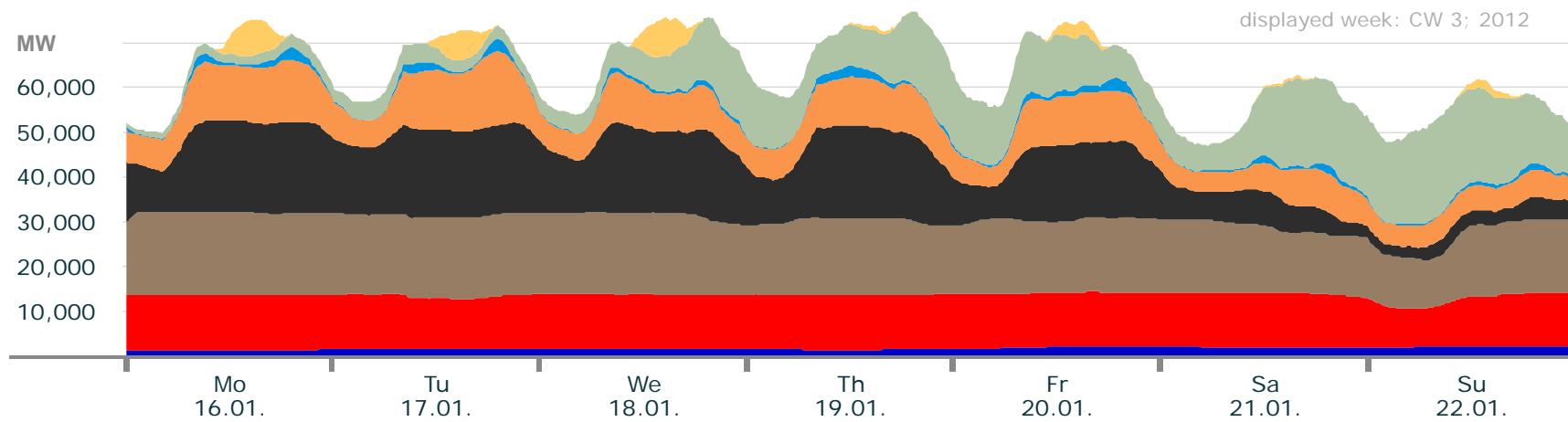


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.5	11.6	11.5	5.0	4.1	0	0.77	0
max. power (GW)	2.0	12.2	16.8	19.0	12.9	3.4	23.0	7.5
weekly energy (TWh)	0.3	2.0	2.5	2.2	1.3	0.14	1.6	0.13

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 3

Actual production



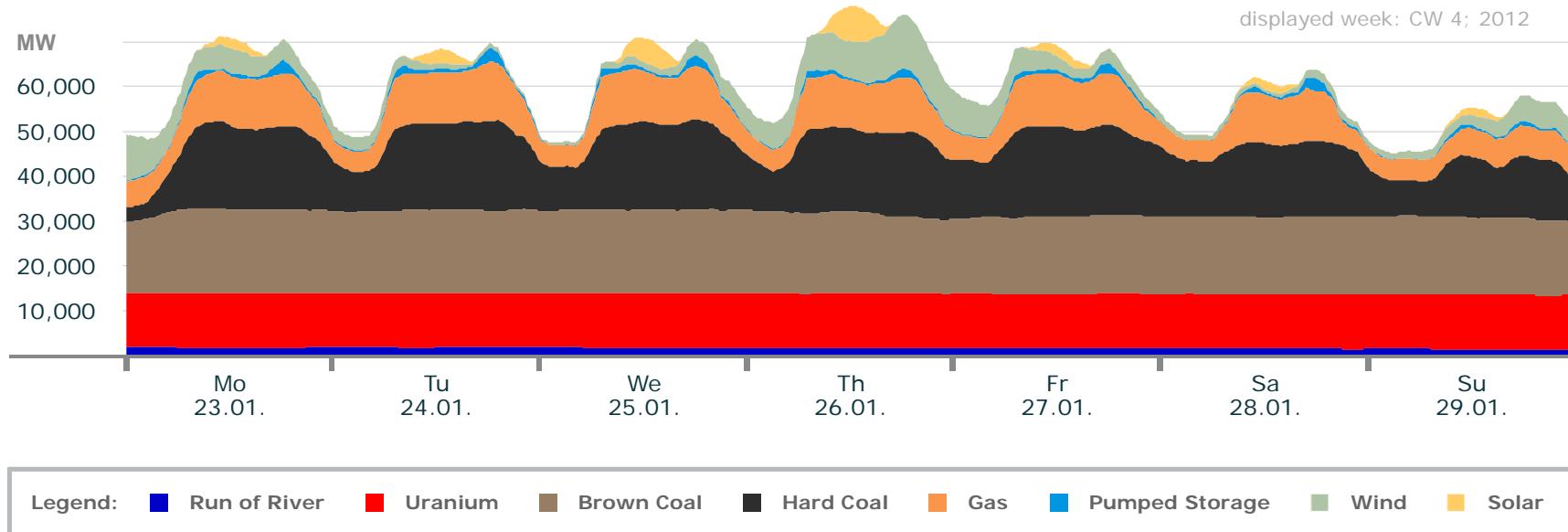
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.5	8.5	10.5	2.4	4.3	0	1.0	0
max. power (GW)	2.4	12.2	18.6	20.7	16.5	3.1	21.8	8.4
weekly energy (TWh)	0.32	2.0	2.8	2.2	1.4	0.13	1.64	0.14

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 4

Actual production

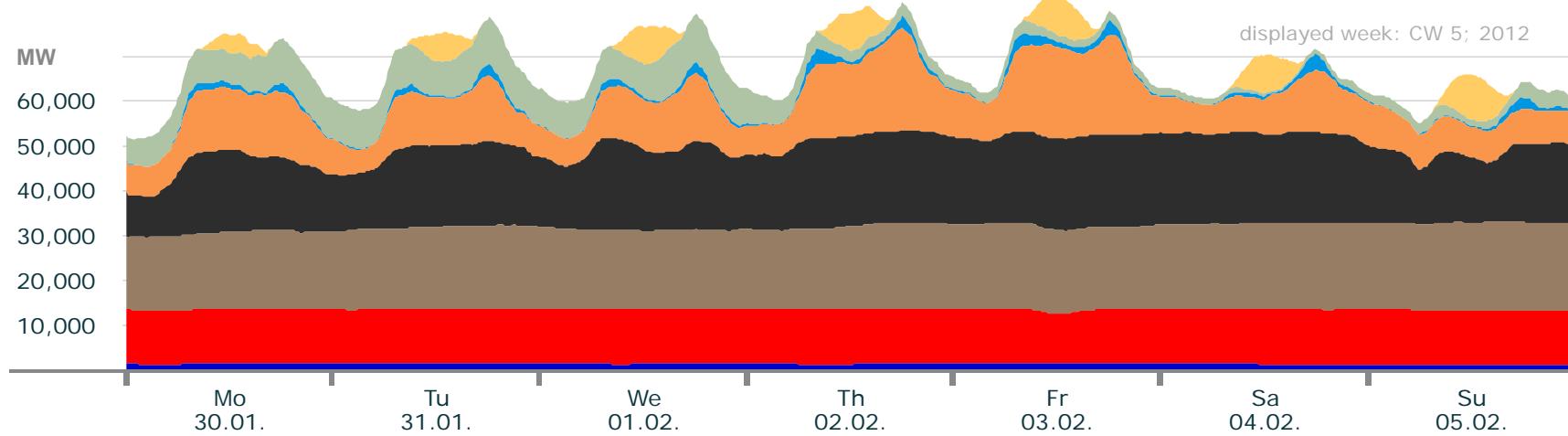


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.5	12.0	15.8	3.3	4.5	0	0.35	0
max. power (GW)	2.0	12.2	19.0	20.1	13.1	3.2	11.7	7.9
weekly energy (TWh)	0.30	2.0	3.0	2.6	1.4	0.12	0.60	0.12

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 5

Actual production



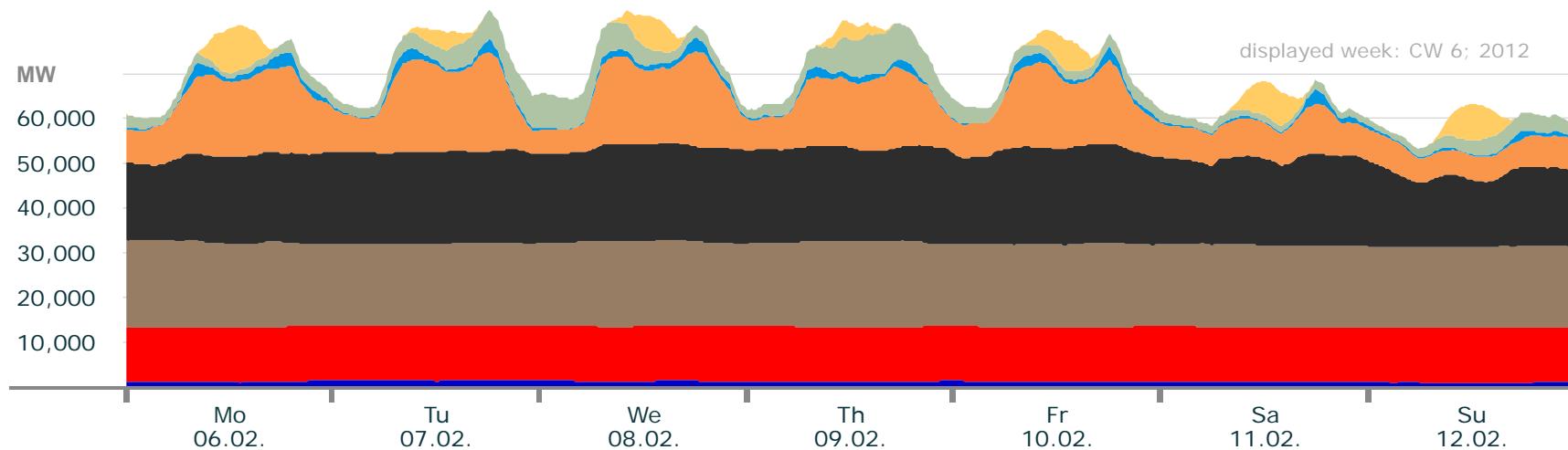
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.3	11.2	16.2	9.0	5.2	0	0.23	0
max. power (GW)	1.7	12.2	19.5	20.6	22.9	3.8	10.9	10.0
weekly energy (TWh)	0.26	2.0	3.1	3.0	1.9	0.14	0.78	0.29

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 6

Actual production



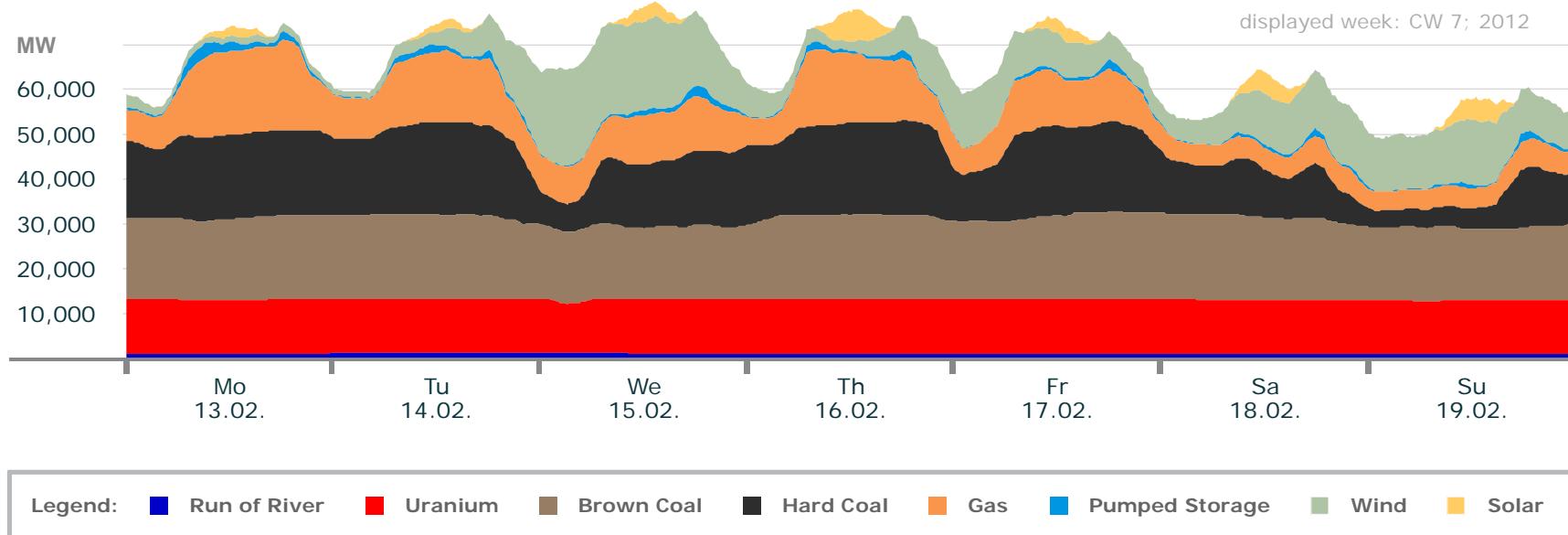
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.1	12.2	17.9	14.5	5.2	0	0.52	0
max. power (GW)	1.7	12.2	19.5	21.9	22.1	3.5	8.8	10.1
weekly energy (TWh)	0.24	2.0	3.1	3.3	2.0	0.17	0.51	0.26

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 7

Actual production

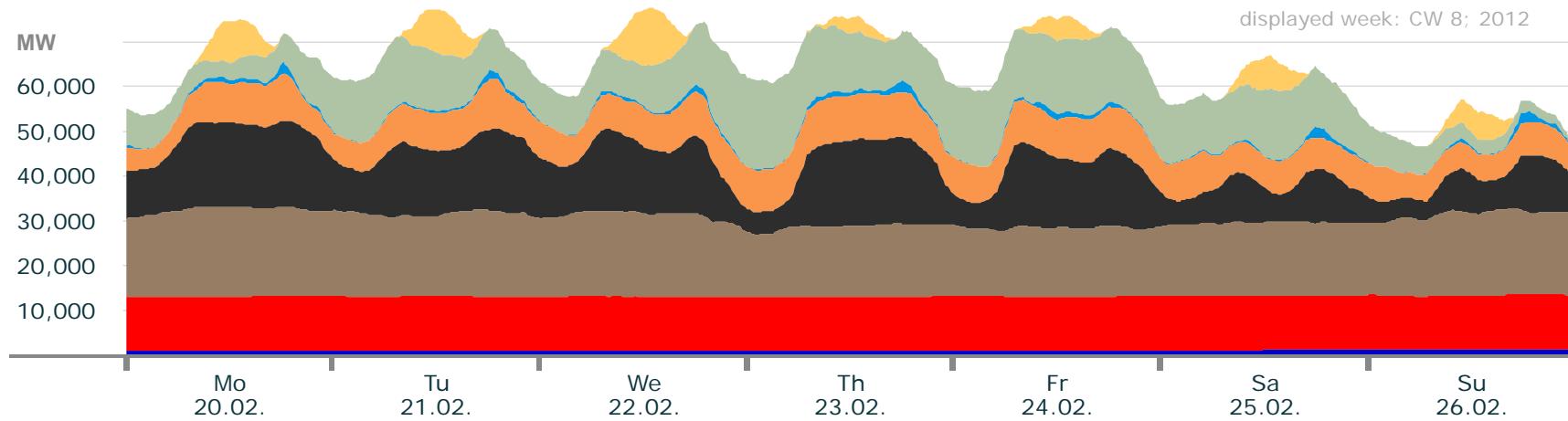


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.1	11.0	15.7	3.8	4.3	0	0.47	0
max. power (GW)	1.4	12.2	19.4	21.2	20.2	3.2	21.5	7.3
weekly energy (TWh)	0.21	2.0	3.0	2.5	1.6	0.13	1.4	0.15

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 8

Actual production



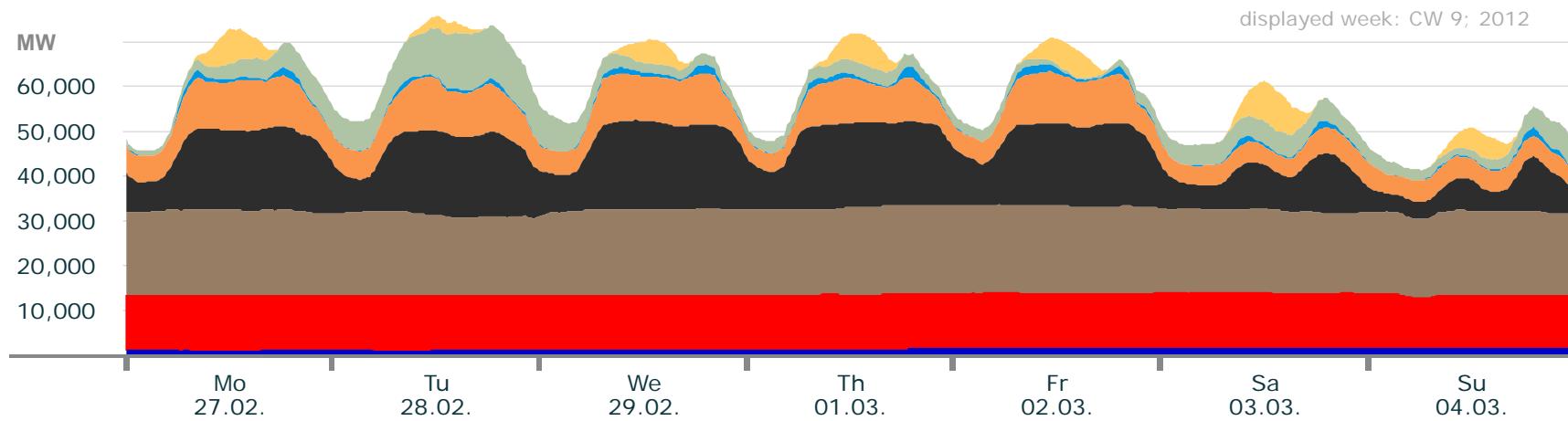
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.1	11.7	13.8	4.3	4.5	0	0.94	0
max. power (GW)	1.5	12.2	20.0	19.3	11.2	2.6	20.1	12.8
weekly energy (TWh)	0.21	2.0	2.9	2.1	1.4	0.10	1.9	0.31

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 9

Actual production



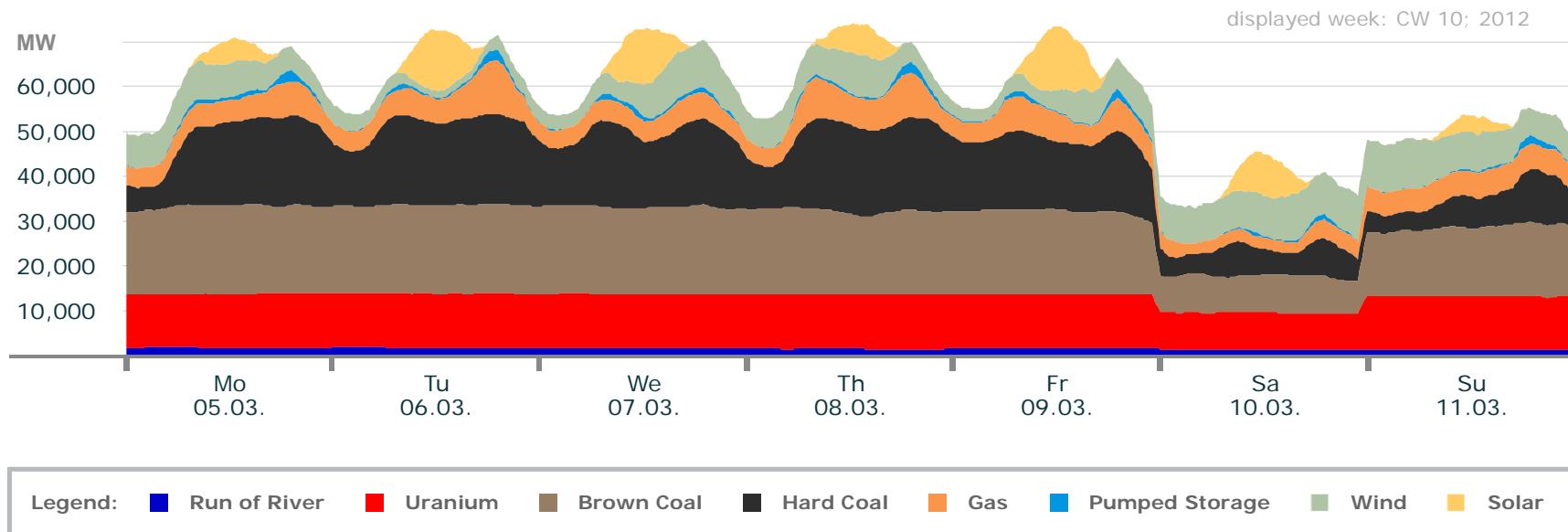
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.3	11.0	17.0	3.9	4.1	0	0.3	0
max. power (GW)	1.9	12.2	19.9	19.9	12.0	2.4	12.5	9.2
weekly energy (TWh)	0.27	2.0	3.2	2.2	1.2	0.10	0.69	0.26

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 10

Actual production

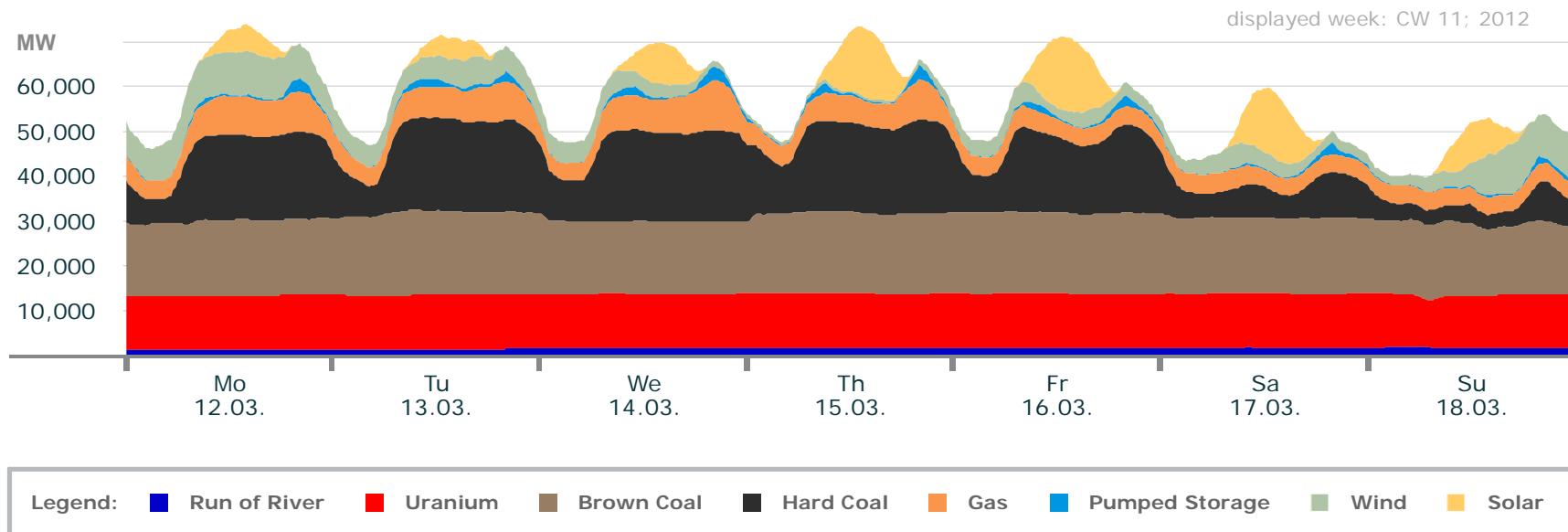


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.4	8.1	7.2	3.9	2.4	0	1.4	0
max. power (GW)	2.0	12.2	19.9	20.6	11.9	2.4	11.0	14.1
weekly energy (TWh)	0.29	1.9	2.9	2.3	0.91	0.10	1.1	0.41

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 11

Actual production

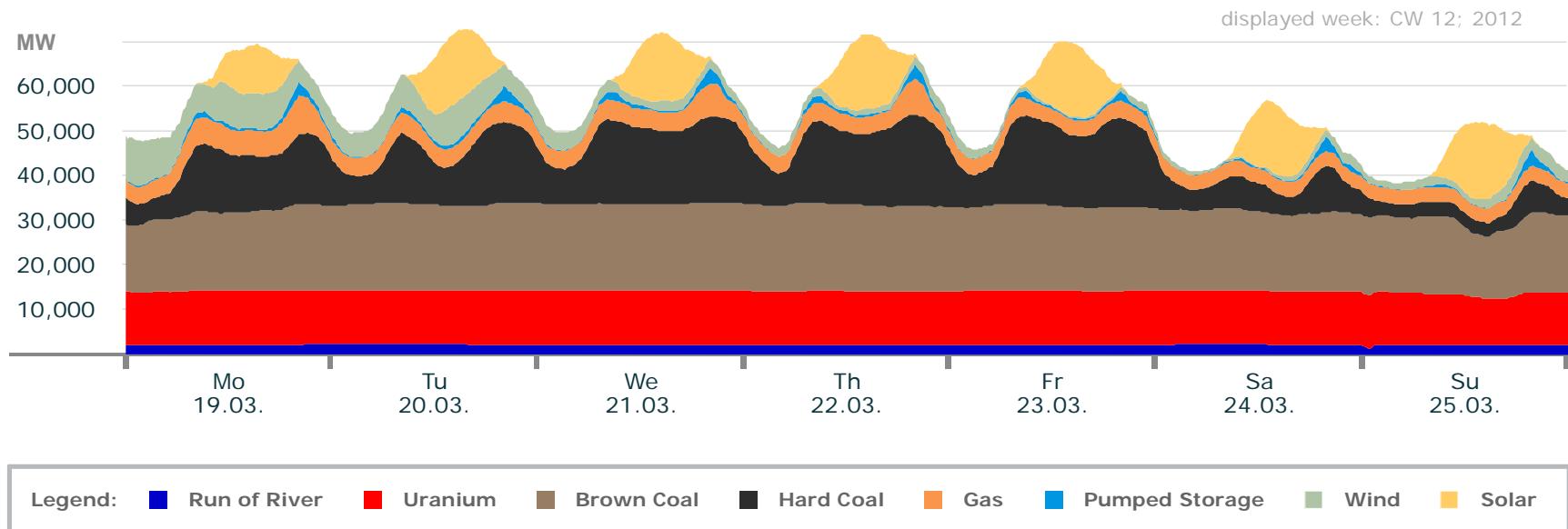


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.4	10.5	14.6	3.3	3.7	0	0.38	0
max. power (GW)	2.0	12.2	18.9	21.0	11.1	3.4	11.4	16.4
weekly energy (TWh)	0.30	2.0	2.9	2.3	0.91	0.11	0.72	0.49

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 12

Actual production

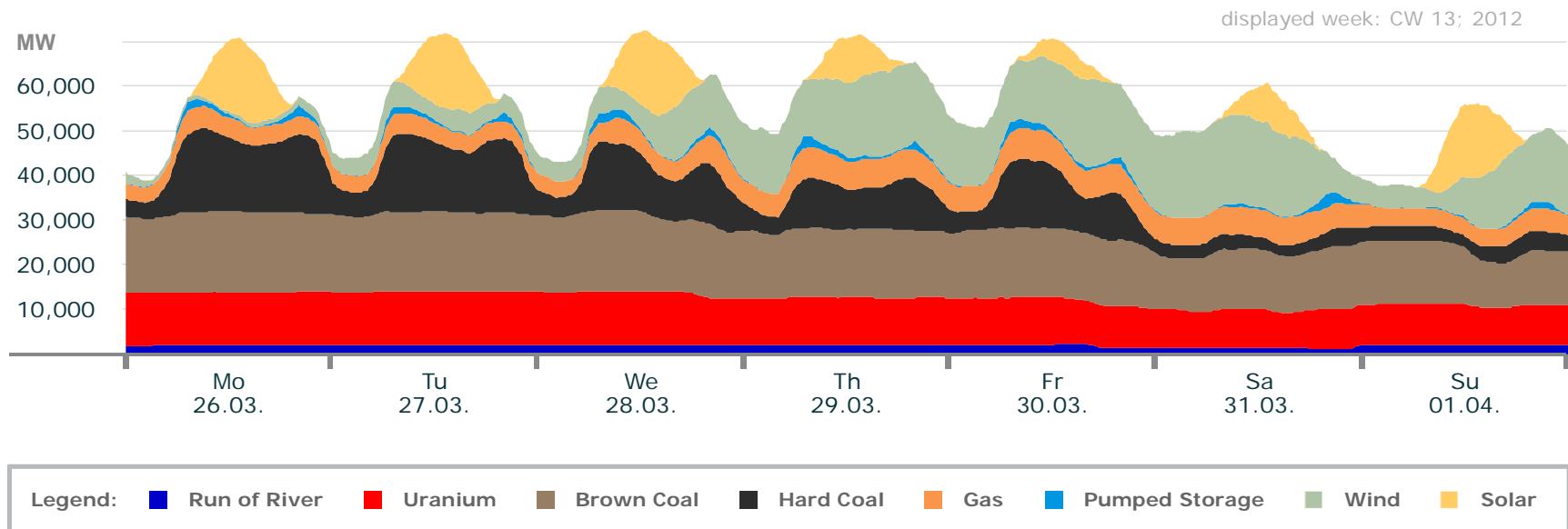


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.2	10.3	13.7	2.9	3.2	0	0.28	0
max. power (GW)	2.5	12.1	19.6	20.4	8.8	3.4	9.8	17.4
weekly energy (TWh)	0.38	2.0	3.1	2.0	0.69	0.11	0.5	0.75

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 13

Actual production

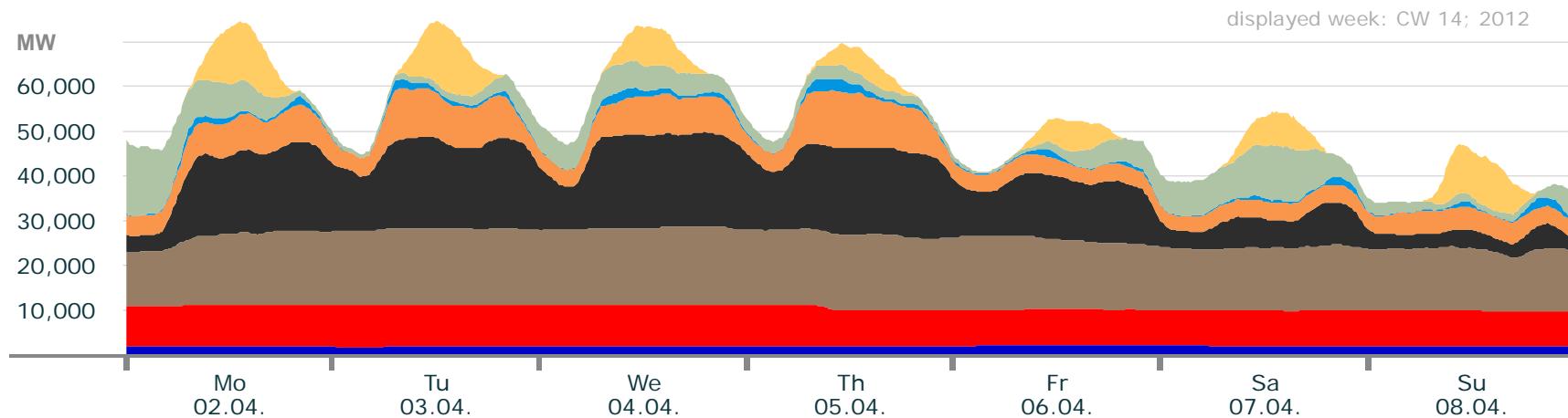


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.3	8.0	9.8	2.4	3.4	0	0.29	0
max. power (GW)	2.3	12.1	18.3	18.9	7.1	3.2	20.3	17.5
weekly energy (TWh)	0.33	1.8	2.6	1.5	0.86	0.12	1.7	0.65

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 14

Actual production



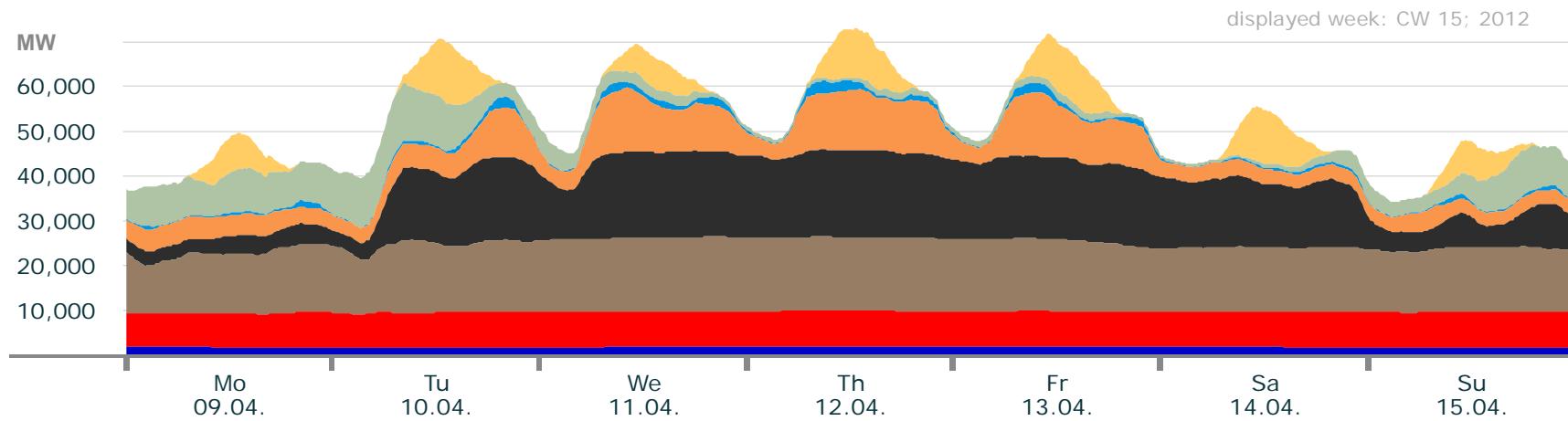
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.9	7.7	11.7	3.0	3.3	0	0.4	0
max. power (GW)	2.3	9.4	17.5	21.0	12.7	3.0	15.2	14.6
weekly energy (TWh)	0.36	1.5	2.6	2.2	1.0	0.12	0.69	0.5

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 15

Actual production



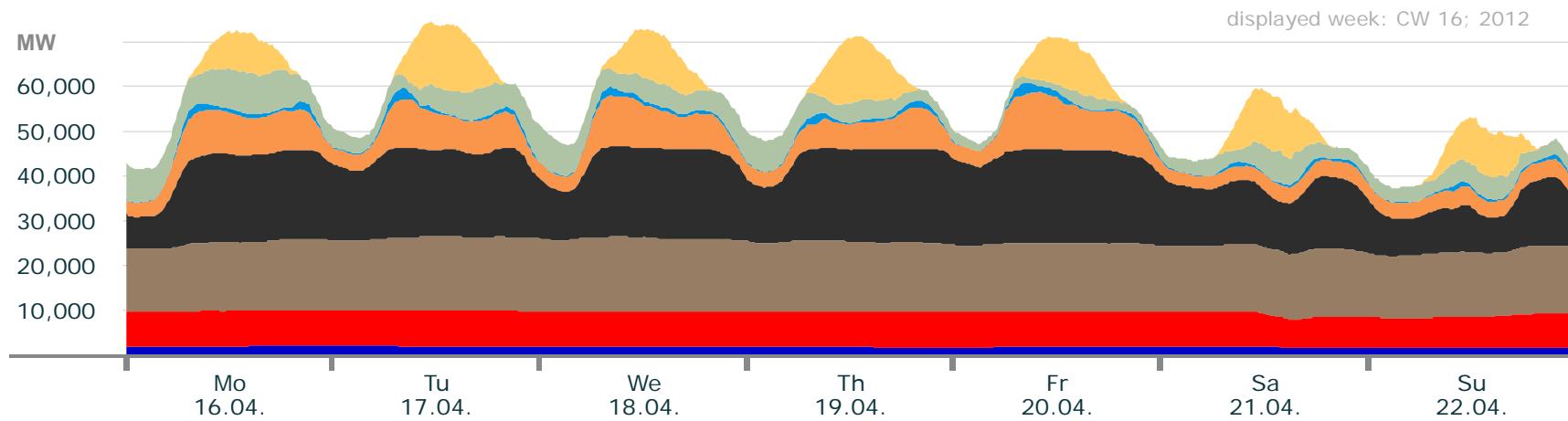
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.7	7.4	10.6	3.0	2.9	0	0.21	0
max. power (GW)	2.2	8.0	16.6	19.6	14.4	3.0	13.0	13.6
weekly energy (TWh)	0.33	1.3	2.5	2.2	1.1	0.12	0.69	0.52

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 16

Actual production



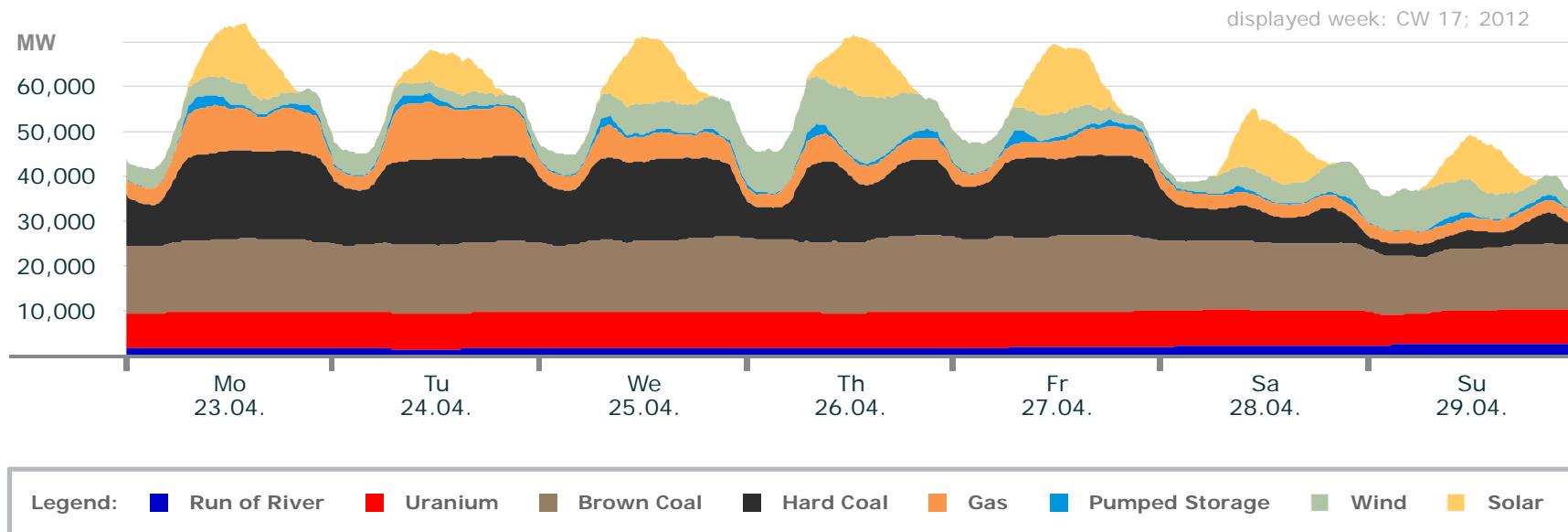
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.8	6.2	13.8	6.9	2.9	0	0.73	0
max. power (GW)	2.4	8.0	16.5	21.0	12.7	2.7	9.2	14.9
weekly energy (TWh)	0.34	1.3	2.6	2.8	1.0	0.11	0.73	0.67

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 17

Actual production

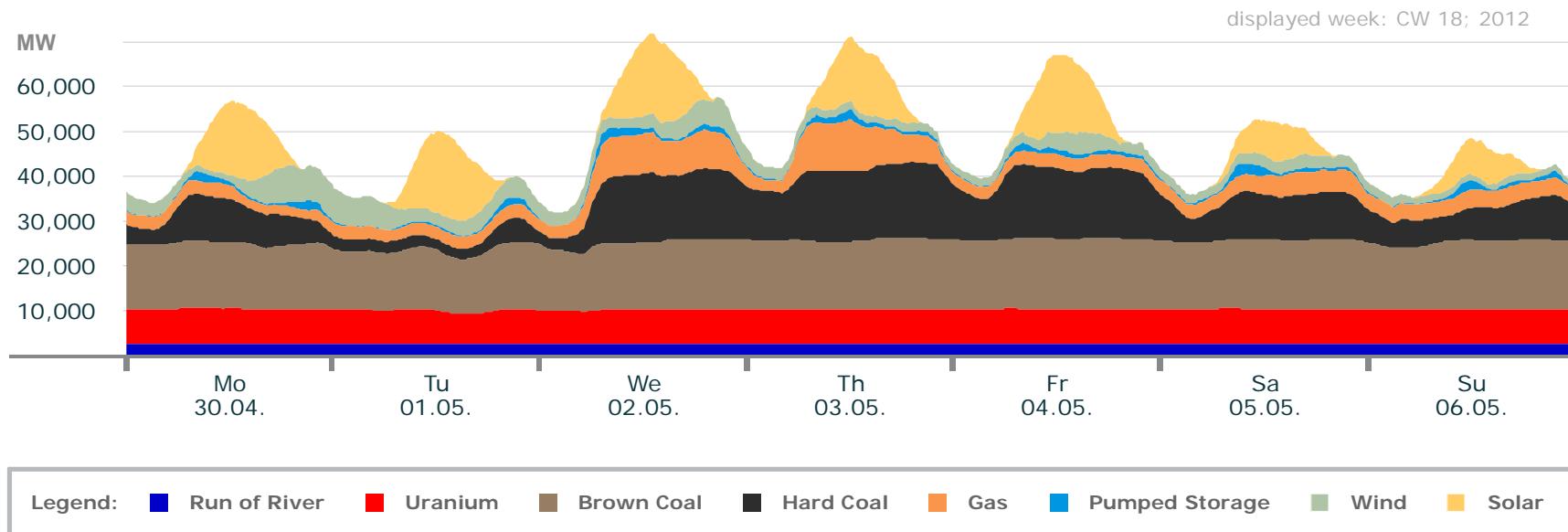


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.6	6.7	12.5	2.7	2.8	0	1.4	0
max. power (GW)	2.7	8.1	17.1	19.6	12.9	2.9	14.9	15.6
weekly energy (TWh)	0.34	1.3	2.6	2.2	0.87	0.13	0.93	0.70

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 18

Actual production

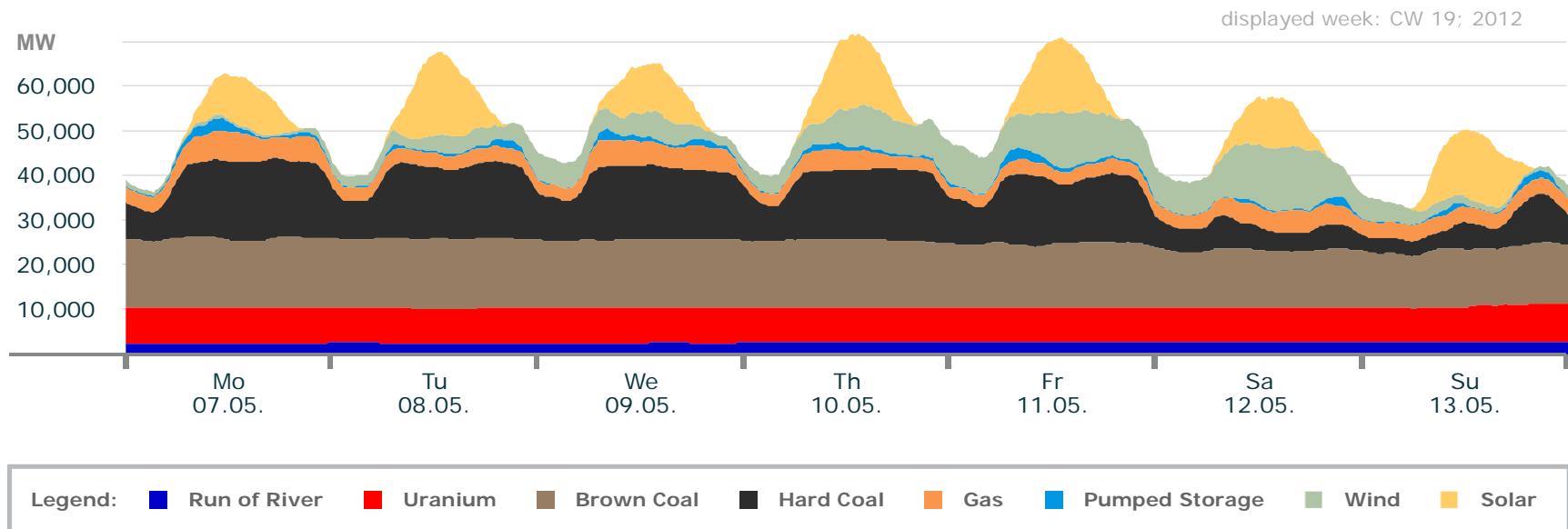


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	6.9	12.0	2.3	2.0	0	0.76	0
max. power (GW)	2.7	8.0	15.7	17.0	11.3	2.8	8.1	18.8
weekly energy (TWh)	0.45	1.3	2.5	1.6	0.72	0.13	0.48	0.82

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 19

Actual production

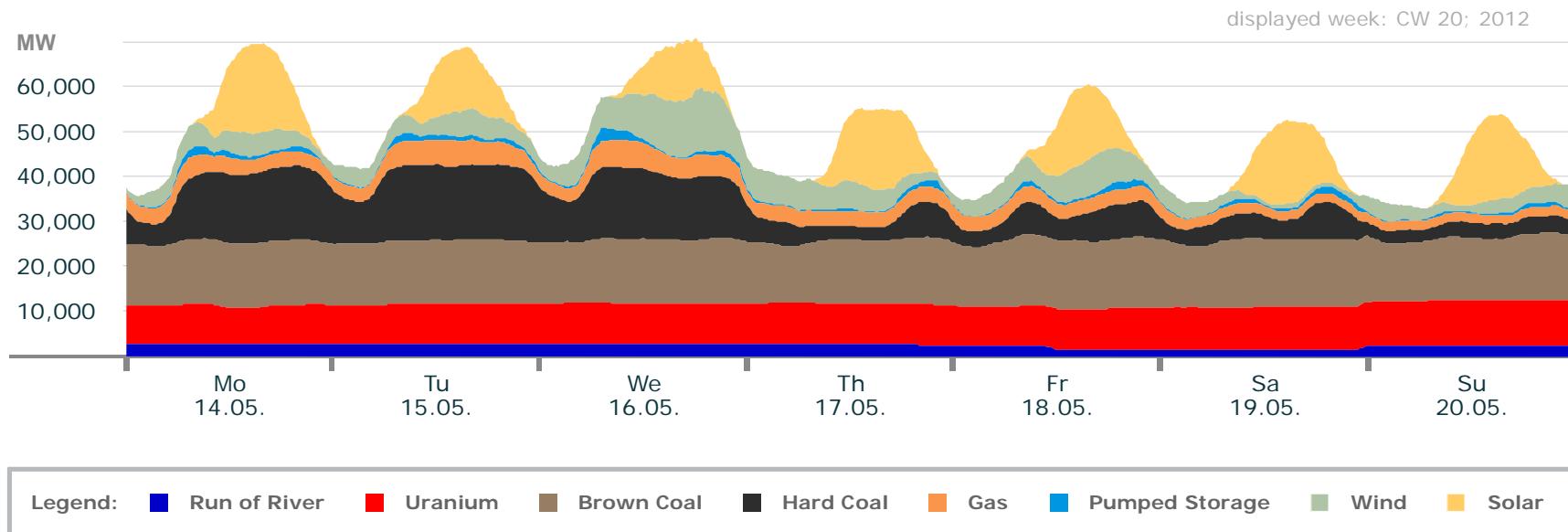


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.3	7.7	11.7	3.3	2.6	0	0.26	0
max. power (GW)	2.7	8.8	15.9	17.9	6.7	3.0	14.1	18.5
weekly energy (TWh)	0.44	1.3	2.4	2.0	0.64	0.12	0.86	0.83

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 20

Actual production

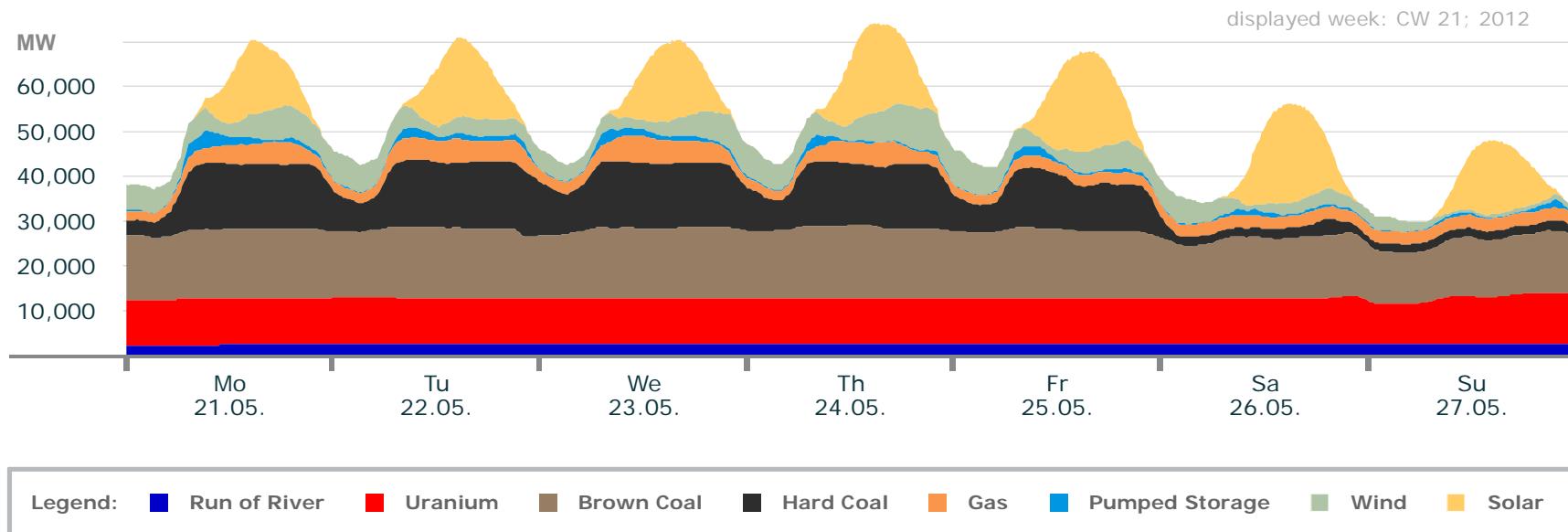


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	7.9	12.7	2.7	1.9	0	0.6	0
max. power (GW)	2.9	10.1	15.9	16.7	6.1	3.0	14.0	19.9
weekly energy (TWh)	0.48	1.5	2.4	1.4	0.57	0.12	0.75	0.99

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 21

Actual production

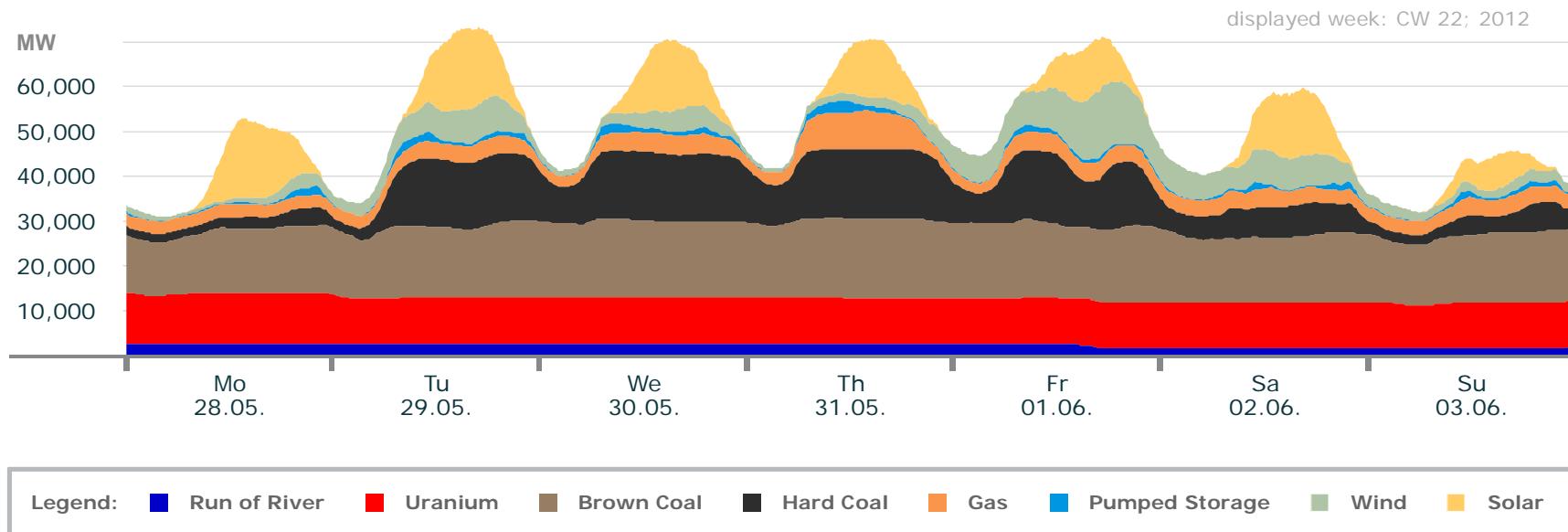


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	8.8	11.2	1.5	2.0	0	0.42	0
max. power (GW)	2.9	11.4	16.4	15.1	6.1	3.9	9.1	22.4
weekly energy (TWh)	0.48	1.7	2.4	1.5	0.55	0.13	0.65	1.1

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 22

Actual production

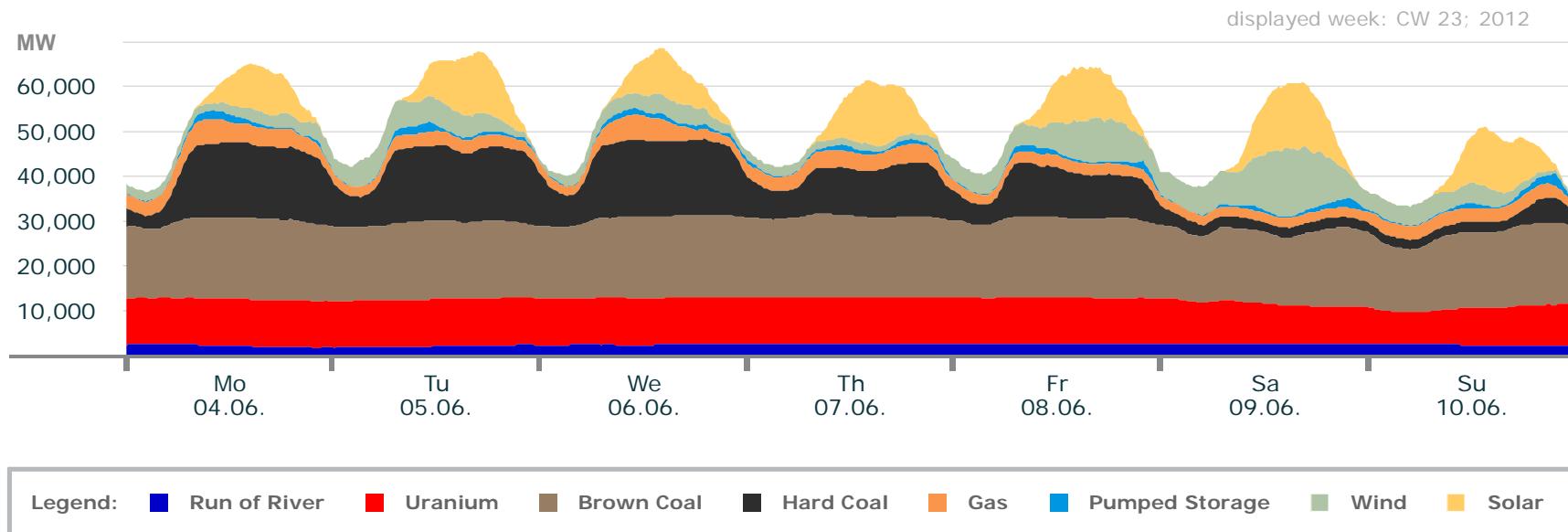


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.7	9.7	11.8	1.9	2.2	0	0.33	0
max. power (GW)	2.8	11.5	17.7	15.7	8.7	2.8	14.8	18.3
weekly energy (TWh)	0.4	1.8	2.6	1.5	0.63	0.12	0.65	0.84

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 23

Actual production

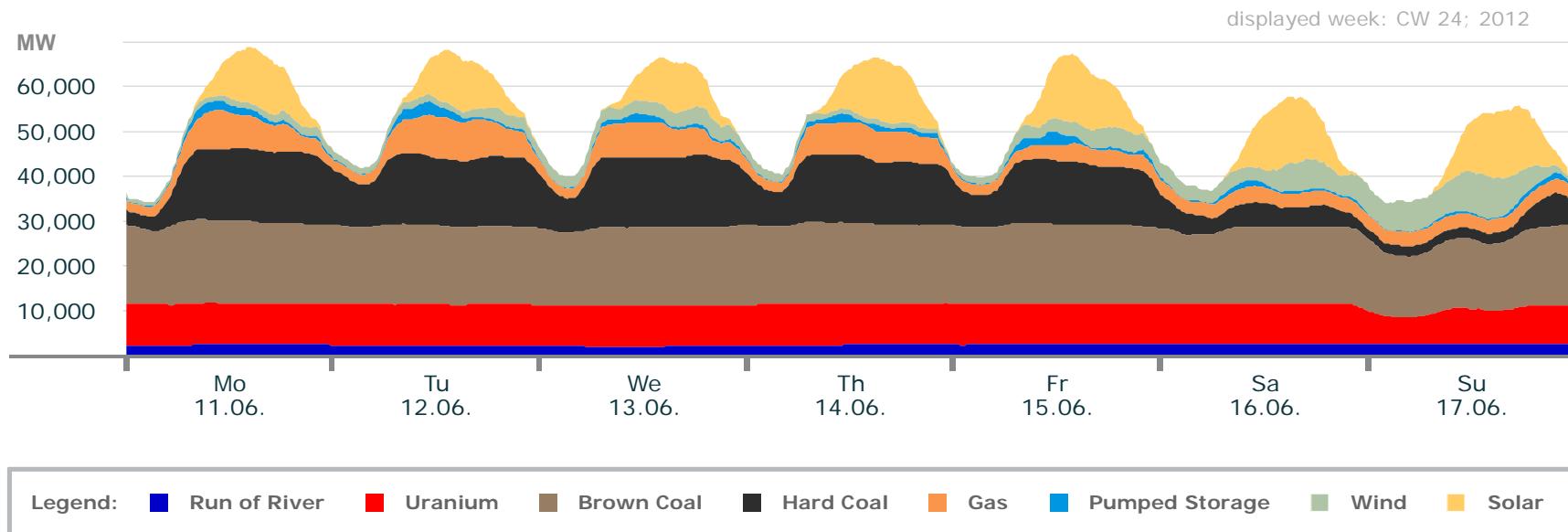


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.9	7.3	13.9	2.1	1.9	0	0.4	0
max. power (GW)	2.8	10.5	18.6	17.1	5.8	2.8	15.1	14.8
weekly energy (TWh)	0.43	1.7	2.9	1.6	0.5	0.12	0.67	0.76

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 24

Actual production

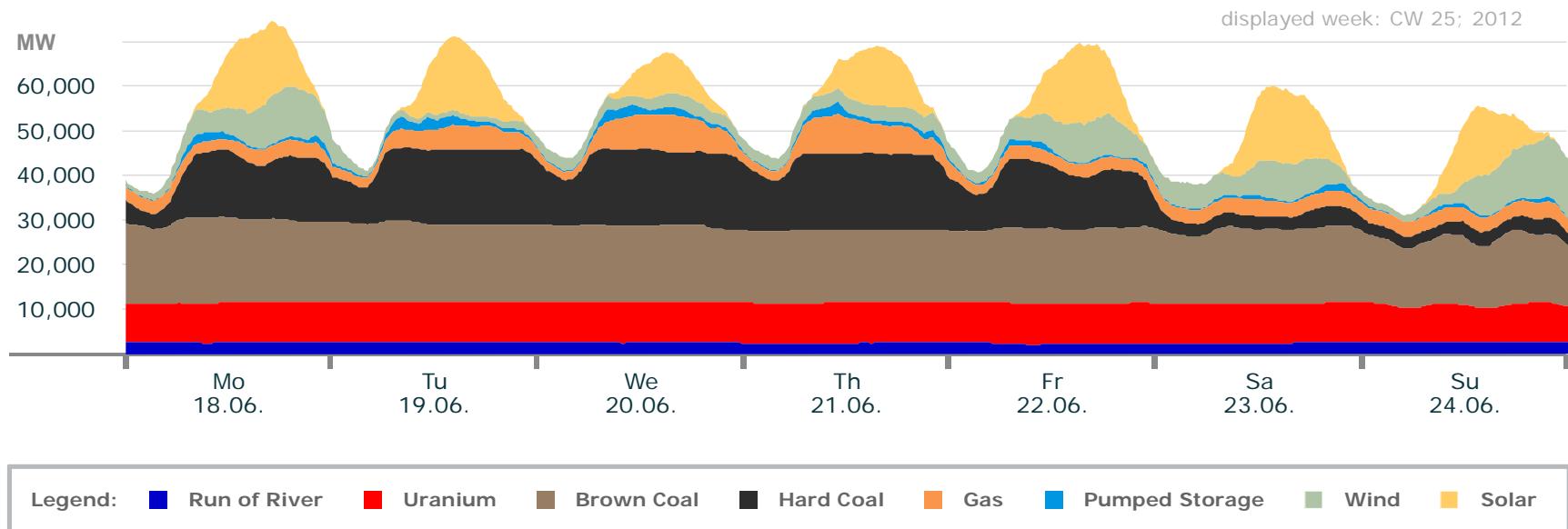


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.2	5.9	13.5	2.2	2.0	0	0.2	0
max. power (GW)	2.9	9.3	18.8	16.3	9.4	3.0	9.4	16.7
weekly energy (TWh)	0.45	1.5	2.9	1.8	0.75	0.14	0.44	0.86

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 25

Actual production

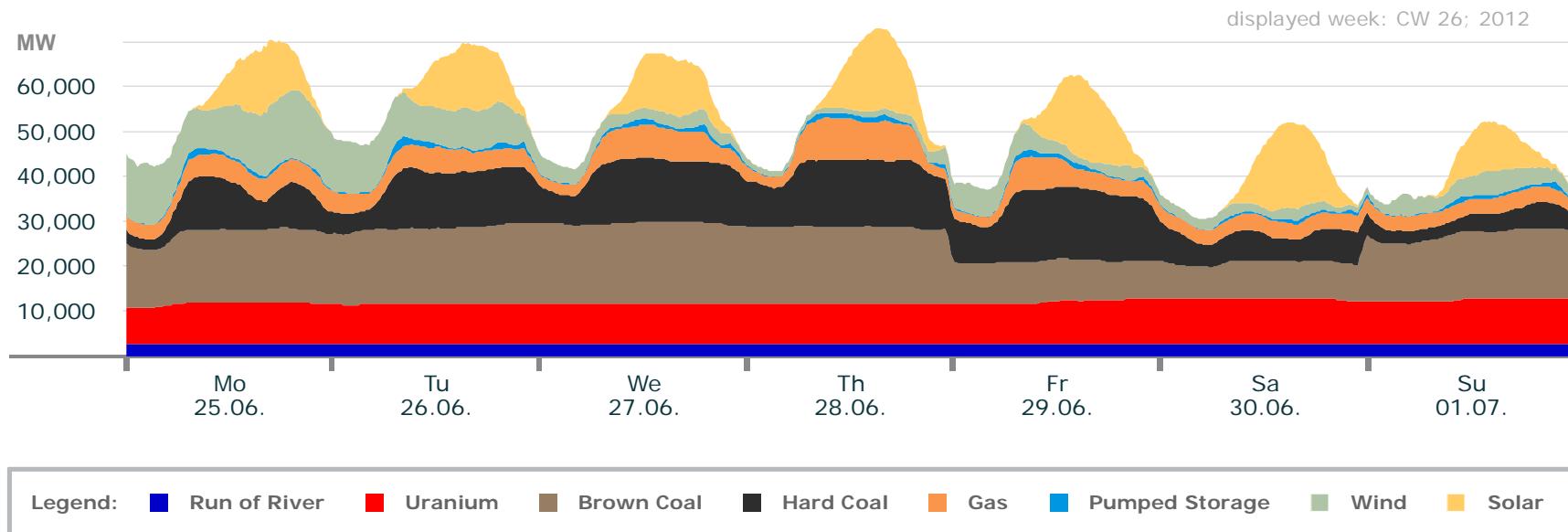


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.2	7.6	13.2	2.5	1.8	0	0.2	0
max. power (GW)	2.9	9.1	19.1	17.2	8.9	3.0	13.5	18.4
weekly energy (TWh)	0.45	1.5	2.8	1.8	0.65	0.14	0.71	0.93

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 26

Actual production

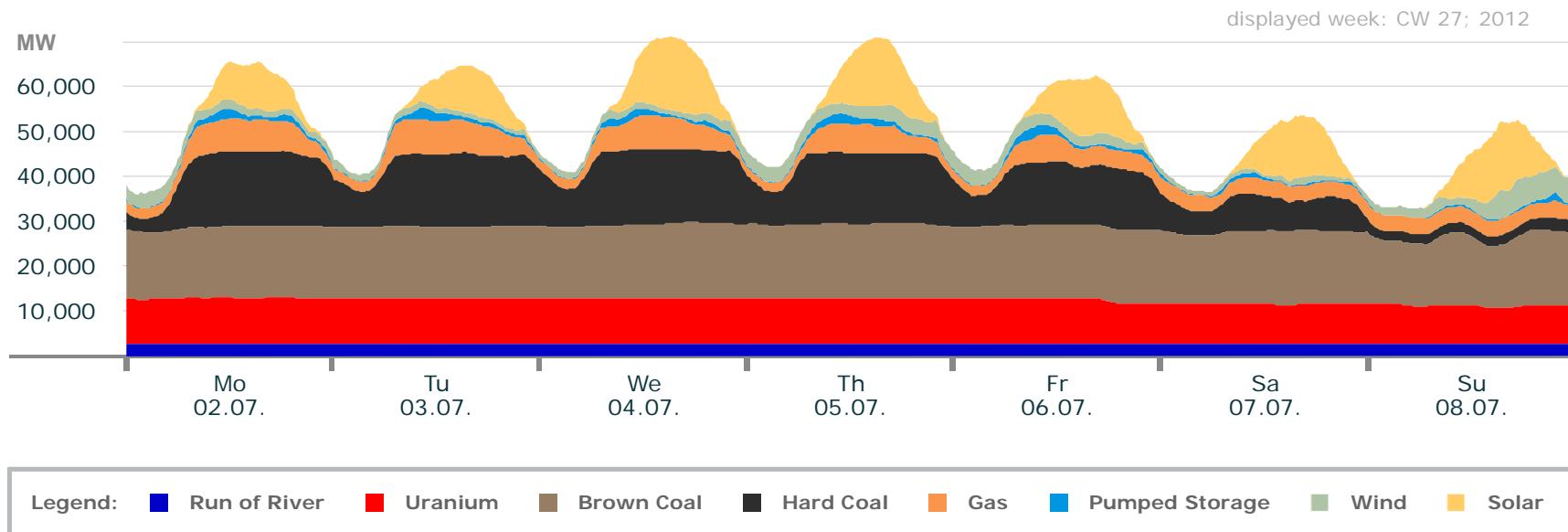


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	8.1	6.9	2.5	2.1	0	0.2	0
max. power (GW)	2.8	10.2	18.2	16.0	9.5	2.4	15.3	19.7
weekly energy (TWh)	0.47	1.6	2.4	1.6	0.75	0.11	0.76	0.93

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 27

Actual production

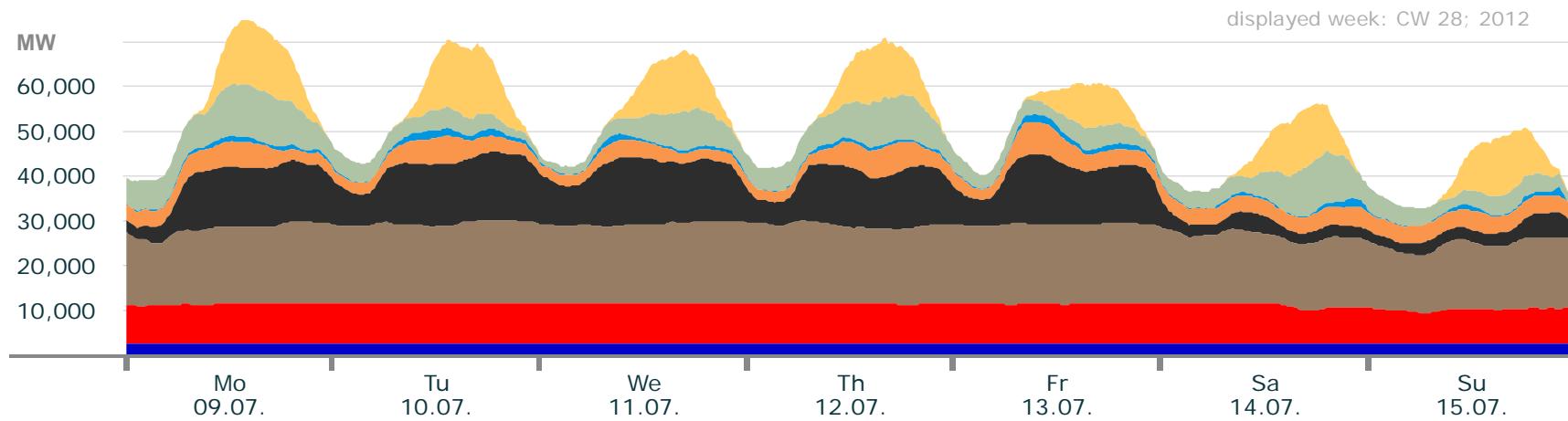


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	8.1	12.6	2.1	1.9	0	0.2	0
max. power (GW)	2.8	10.3	17.0	16.8	7.8	2.7	6.6	16.4
weekly energy (TWh)	0.46	1.6	2.7	1.8	0.72	0.12	0.29	0.81

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 28

Actual production



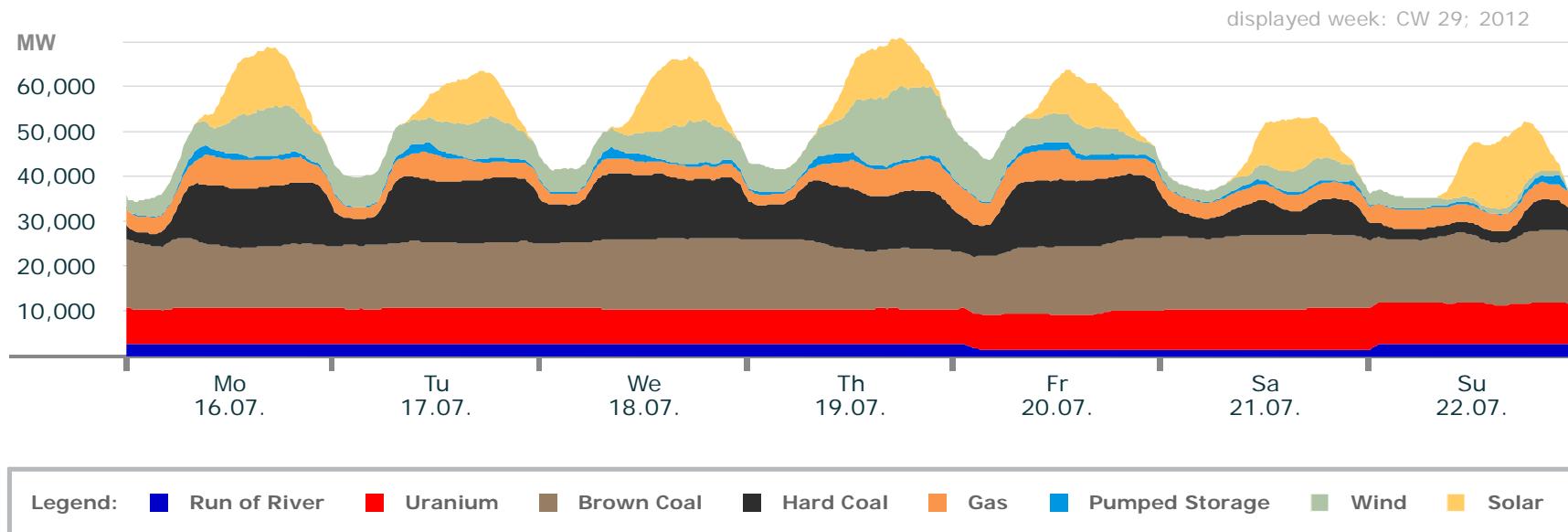
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	6.8	12.7	2.2	2.2	0	0.8	0
max. power (GW)	2.8	9.0	18.5	15.7	7.5	2.1	11.6	15.7
weekly energy (TWh)	0.46	1.5	2.8	1.5	0.64	0.12	0.85	0.81

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 29

Actual production

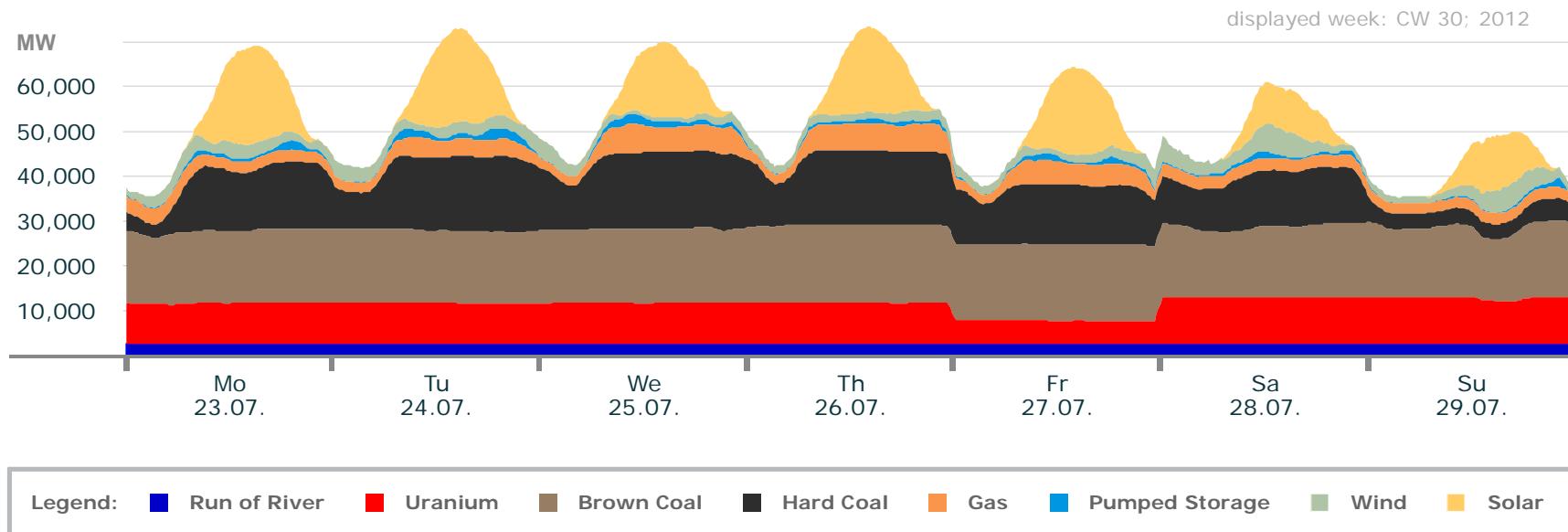


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.5	7.5	12.4	2.3	2.3	0	0.5	0
max. power (GW)	2.8	9.2	16.6	14.9	7.2	2.6	16.2	16.0
weekly energy (TWh)	0.41	1.4	2.5	1.7	0.71	0.13	0.94	0.77

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 30

Actual production

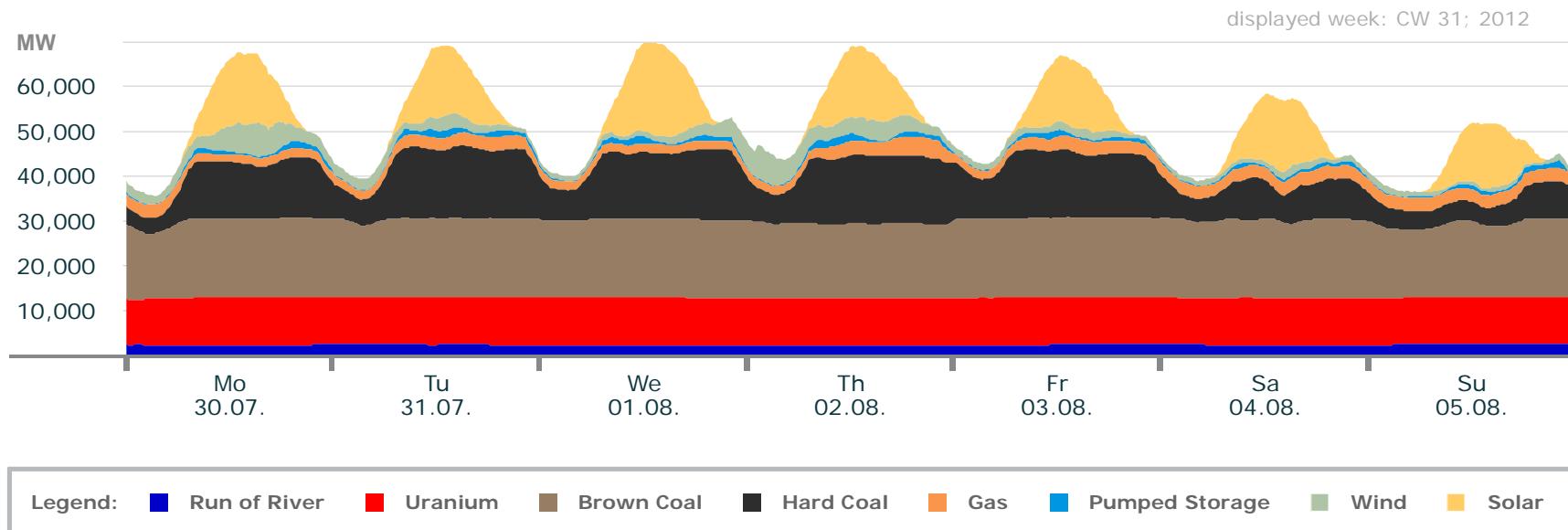


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.6	5.2	13.7	3.0	2.0	0	0.1	0
max. power (GW)	2.8	10.5	17.5	17.1	6.4	2.3	5.8	21.8
weekly energy (TWh)	0.46	1.5	2.7	2.0	0.6	0.12	0.35	1.0

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 31

Actual production

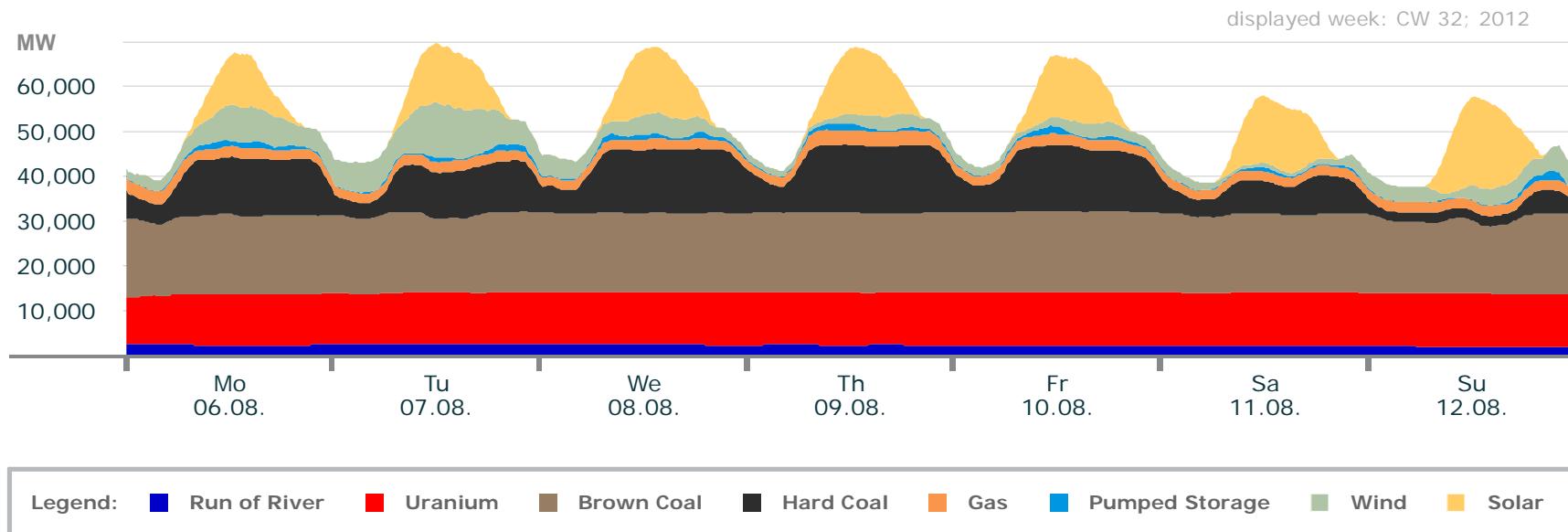


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.4	10.0	14.5	3.4	1.6	0	0.27	0
max. power (GW)	2.7	10.6	17.9	16.3	4.3	1.8	7.4	20.6
weekly energy (TWh)	0.43	1.8	2.9	1.8	0.42	0.12	0.32	0.94

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 32

Actual production

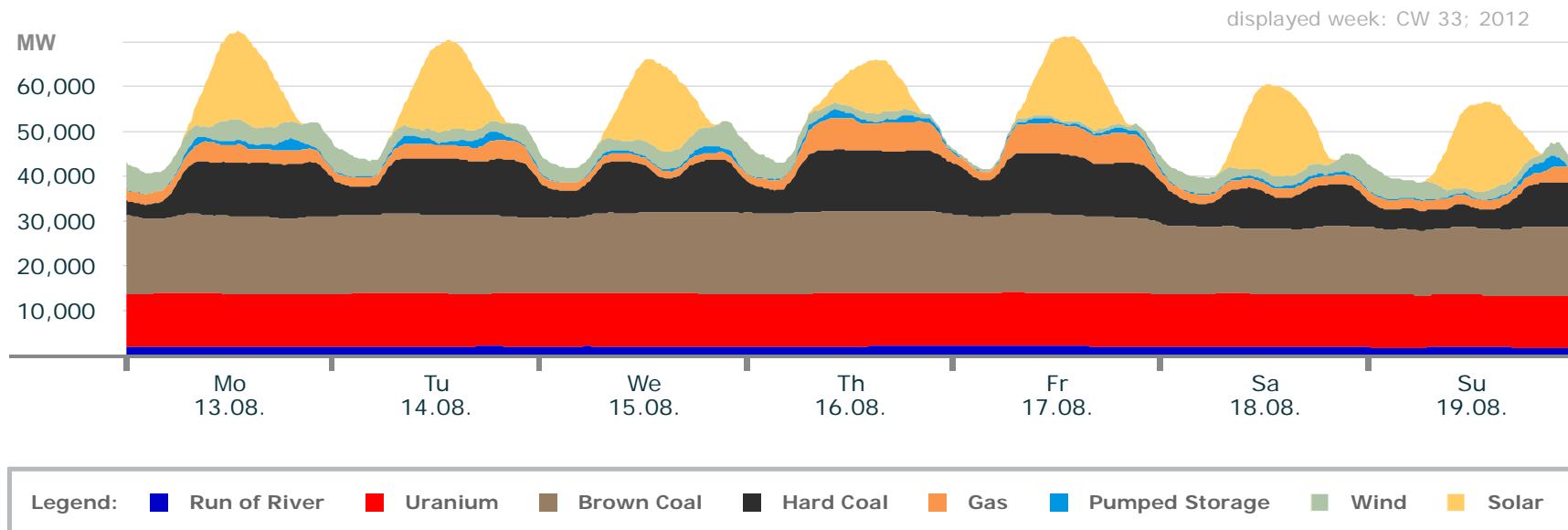


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.0	10.6	15.0	2.2	2.0	0	0.42	0
max. power (GW)	2.7	12.0	18.1	15.2	3.4	2.1	11.8	20.0
weekly energy (TWh)	0.42	2.0	2.9	1.5	0.39	0.1	0.59	0.88

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 33

Actual production

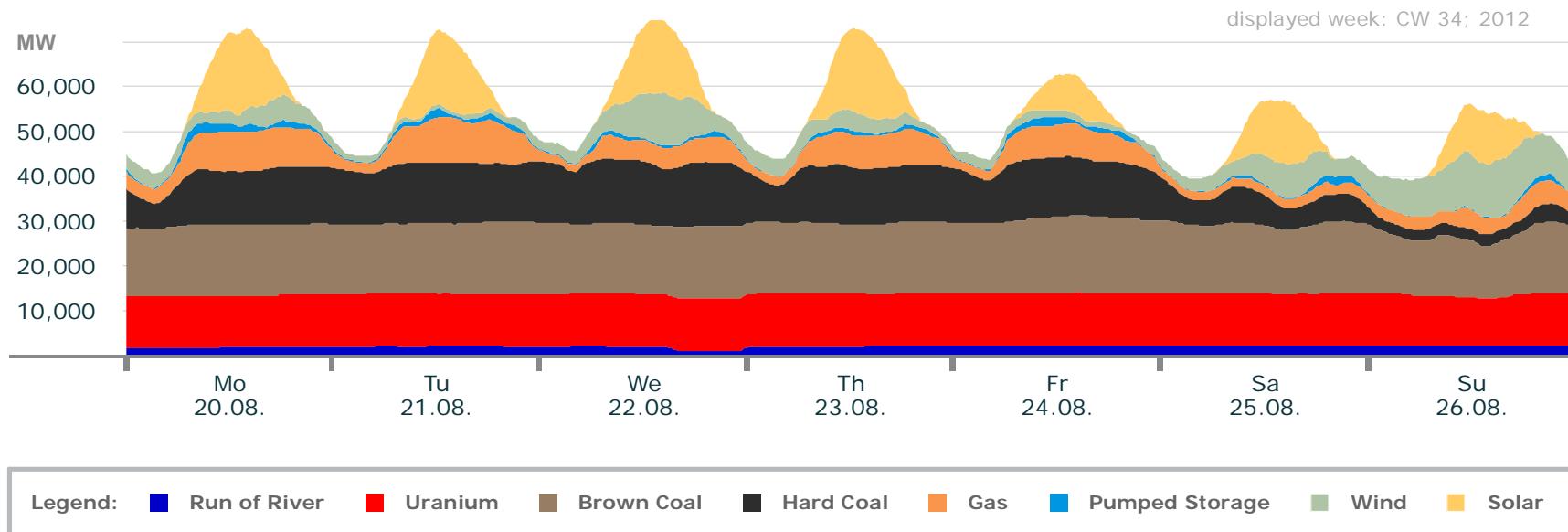


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.8	11.5	14.5	3.0	1.6	0	0.29	0
max. power (GW)	2.4	11.9	18.3	13.8	7.1	2.8	6.5	20.1
weekly energy (TWh)	0.36	2.0	2.8	1.6	0.53	0.12	0.43	1.0

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 34

Actual production

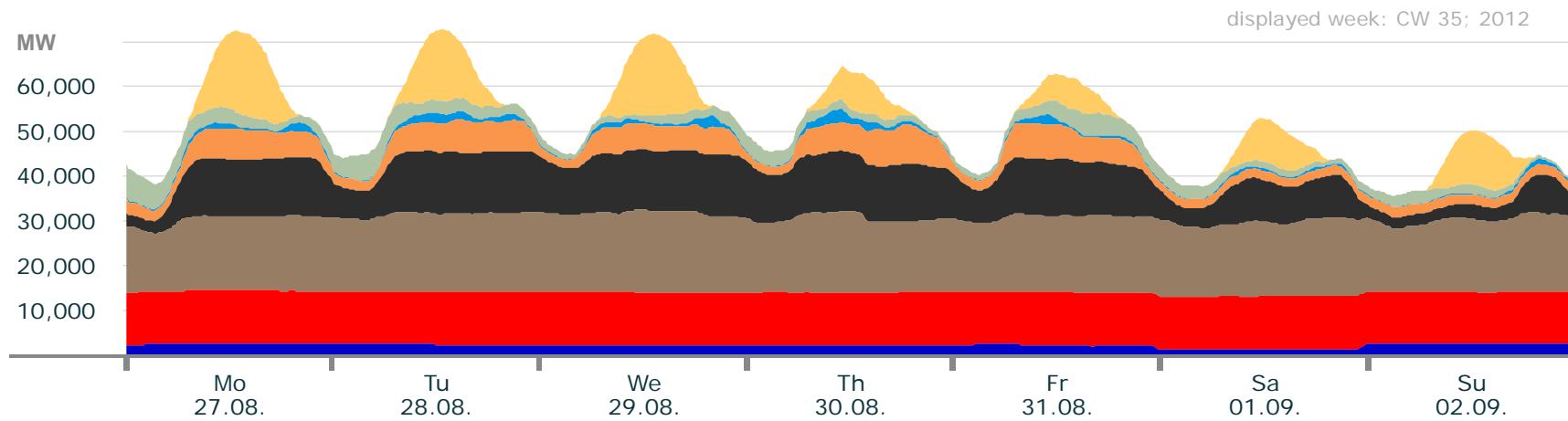


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.2	10.5	11.7	2.5	1.5	0	0.20	0
max. power (GW)	2.5	11.8	17.3	14.4	10.2	2.4	12.8	18.8
weekly energy (TWh)	0.37	2.0	2.6	1.7	0.82	0.12	0.66	0.8

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 35

Actual production



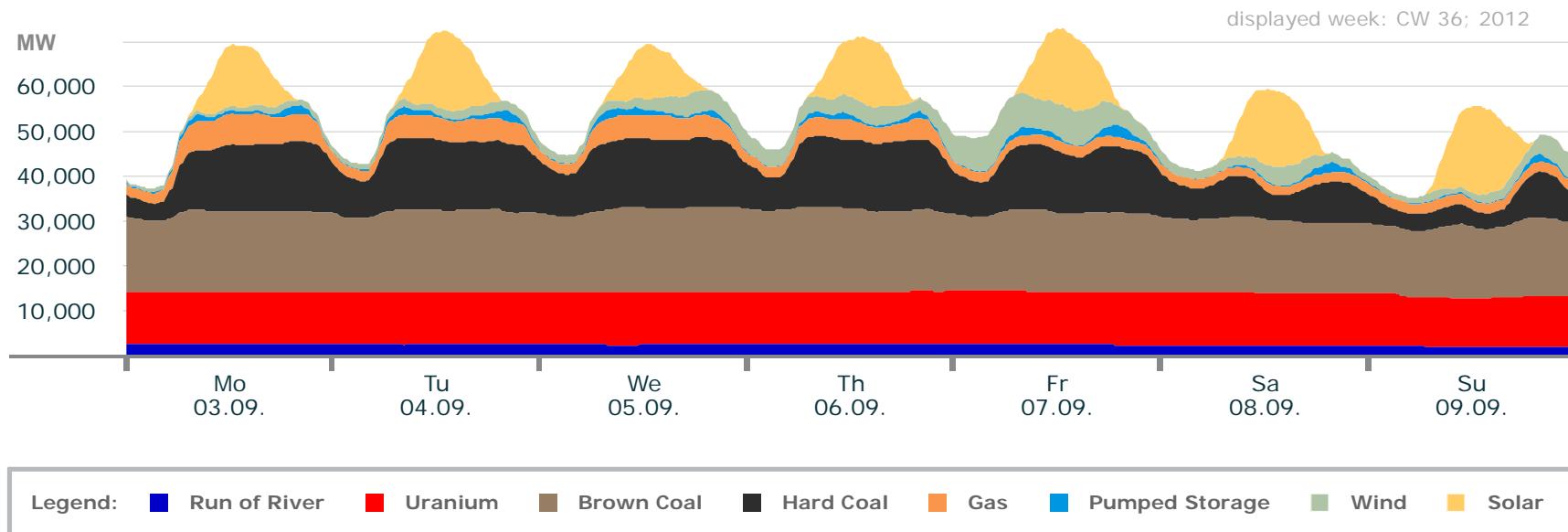
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.4	11.6	12.9	2.5	1.8	0	0.31	0
max. power (GW)	2.7	11.9	18.3	13.8	8.7	3.0	6.2	18.6
weekly energy (TWh)	0.40	2.0	2.8	1.7	0.72	0.12	0.35	0.68

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 36

Actual production

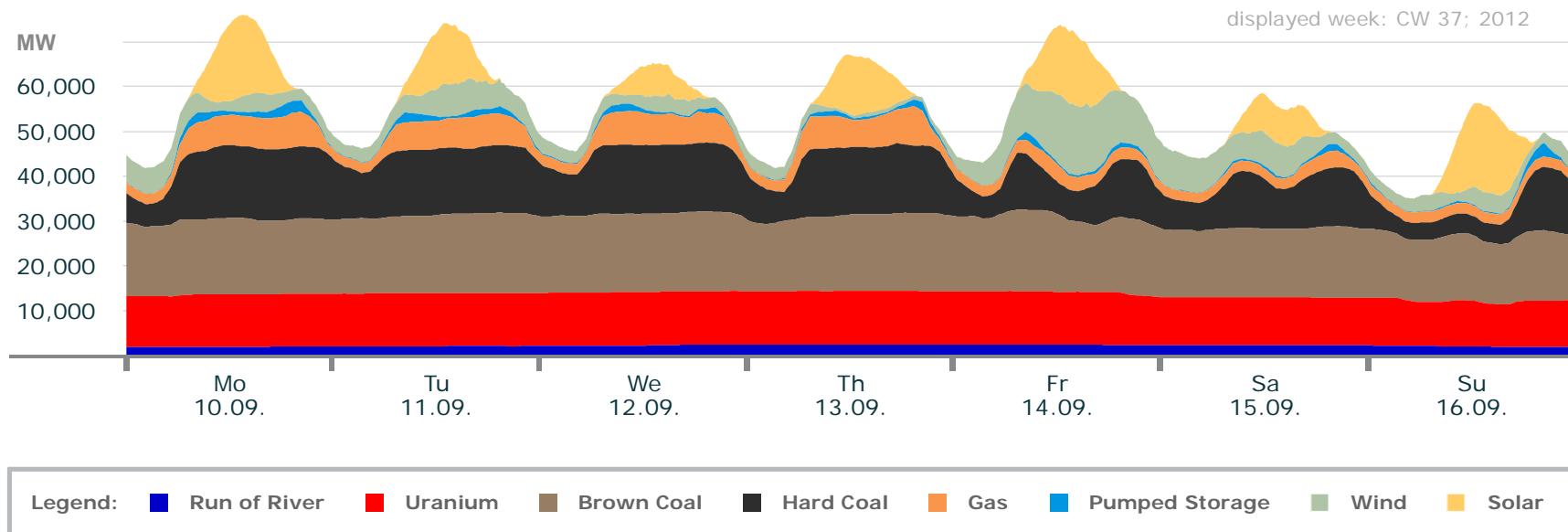


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.1	10.7	14.7	3.6	1.9	0	0.24	0
max. power (GW)	2.7	11.9	19.0	16.0	6.9	2.5	8.4	19.6
weekly energy (TWh)	0.42	2.0	2.9	1.9	0.57	0.12	0.46	0.83

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 37

Actual production

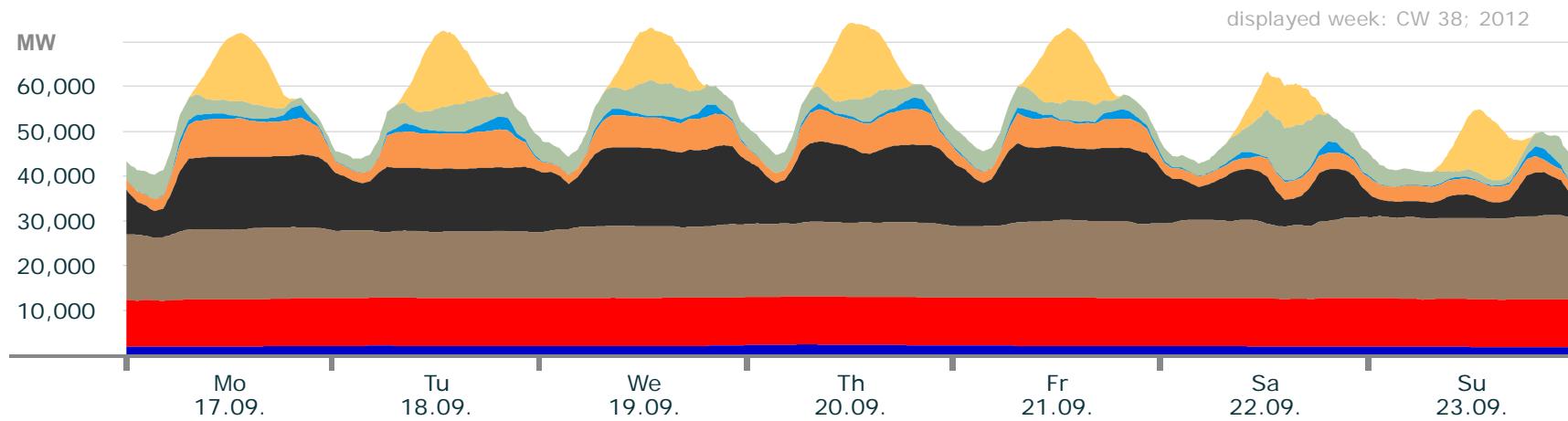


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.0	9.5	13.4	3.8	2.2	0	0.2	0
max. power (GW)	2.7	12.0	18.2	16.2	8.8	3.1	15.6	19.3
weekly energy (TWh)	0.40	1.9	2.7	1.9	0.70	0.12	0.74	0.68

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 38

Actual production



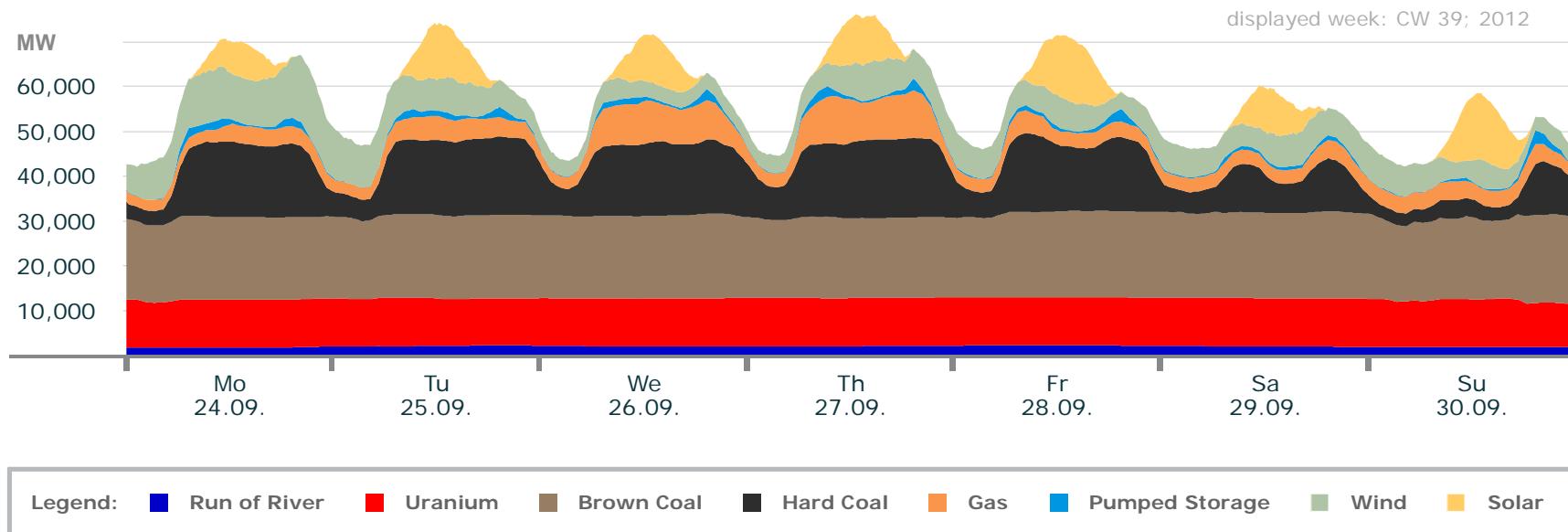
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.0	10.2	13.9	3.6	1.9	0	0.89	0
max. power (GW)	2.6	10.8	18.1	17.8	8.6	3.0	12.3	17.0
weekly energy (TWh)	0.38	1.8	2.8	2.1	0.84	0.12	0.70	0.70

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 39

Actual production

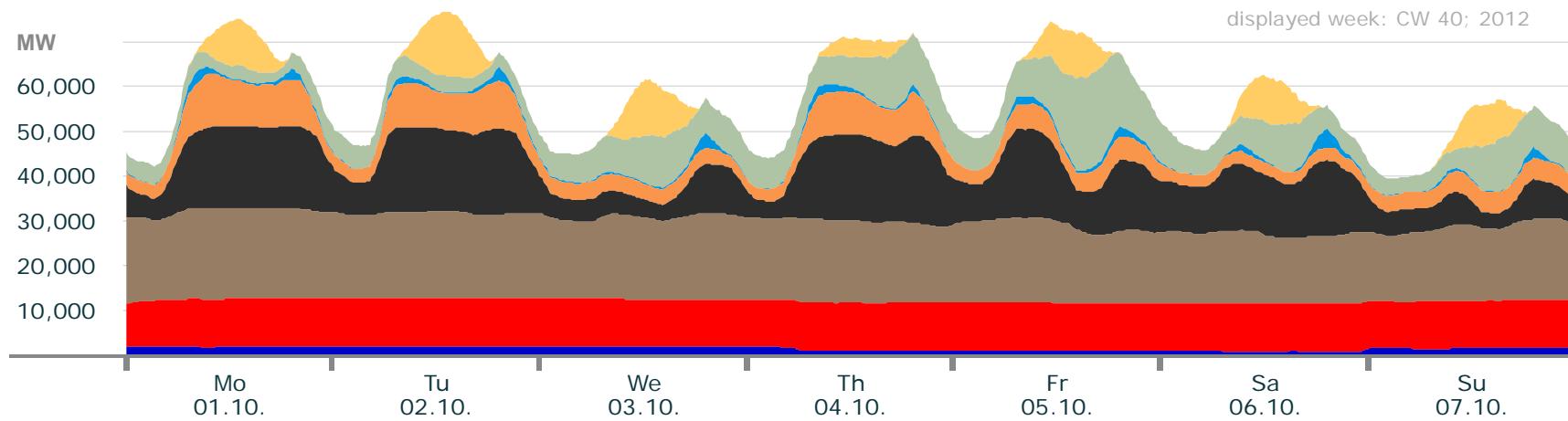


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.9	9.6	16.6	2.9	2.3	0	2.4	0
max. power (GW)	2.5	10.8	19.5	17.8	10.6	3.0	14.7	14.7
weekly energy (TWh)	0.38	1.8	3.1	1.9	0.76	0.13	1.1	0.53

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 40

Actual production



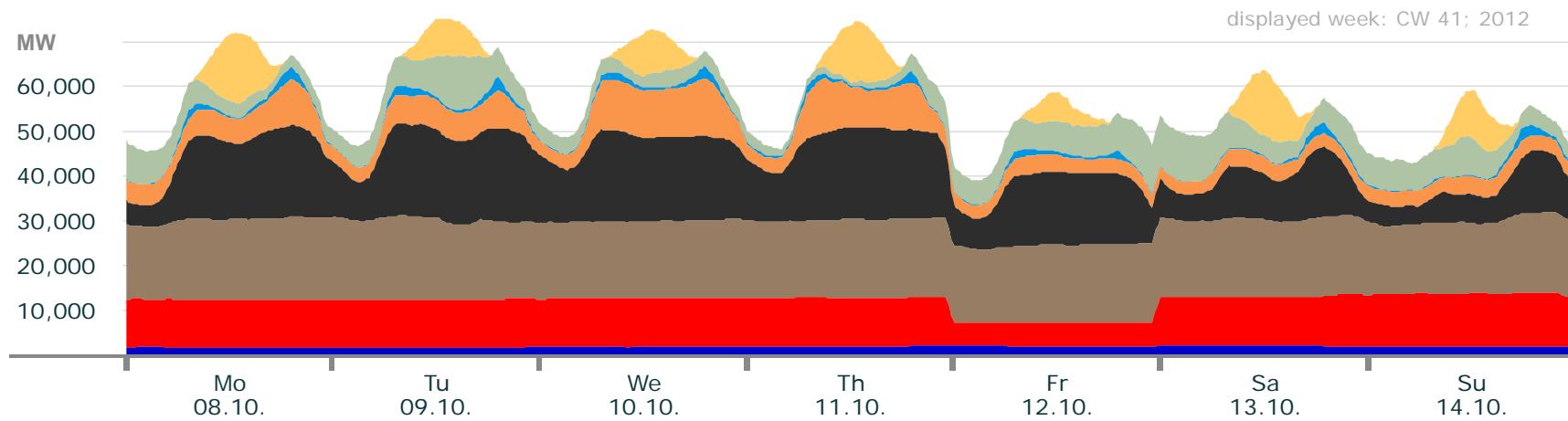
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.0	9.7	14.4	3.5	2.5	0	1.9	0
max. power (GW)	2.2	10.8	20.3	19.9	12.0	4.2	21.1	14.3
weekly energy (TWh)	0.27	1.8	3.0	2.0	0.88	0.12	1.2	0.47

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 41

Actual production



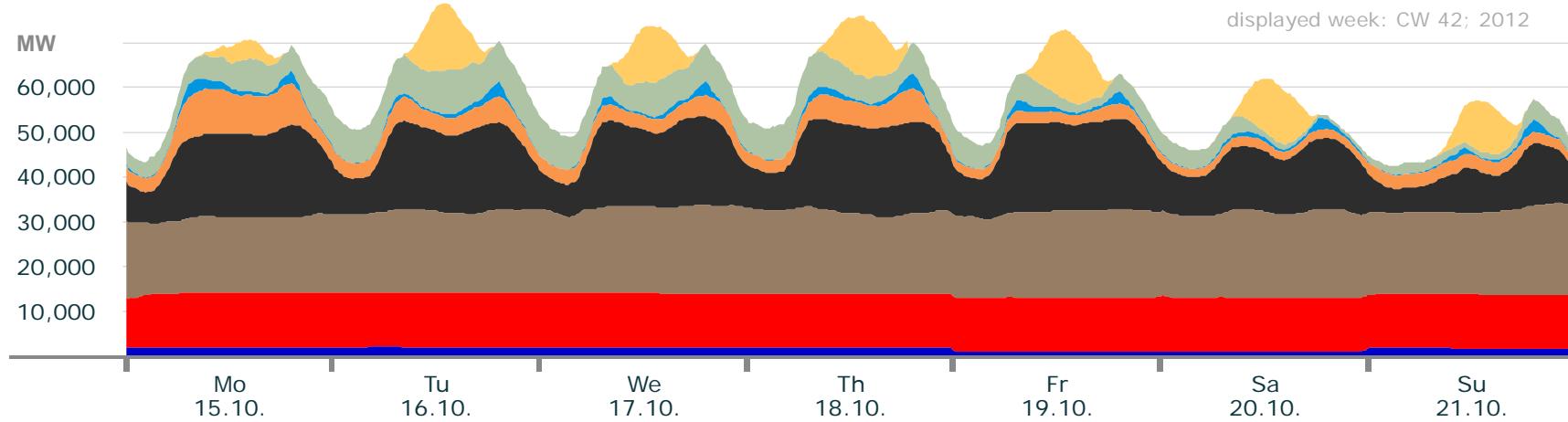
Legend: Run of River (blue), Uranium (red), Brown Coal (brown), Hard Coal (black), Gas (orange), Pumped Storage (light blue), Wind (green), Solar (yellow)

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.6	5.3	15.0	4.1	2.7	0	0.53	0
max. power (GW)	2.3	12.1	18.8	20.9	12.7	3.1	11.9	15.6
weekly energy (TWh)	0.34	1.7	2.9	2.3	0.91	0.13	0.83	0.47

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 42

Actual production



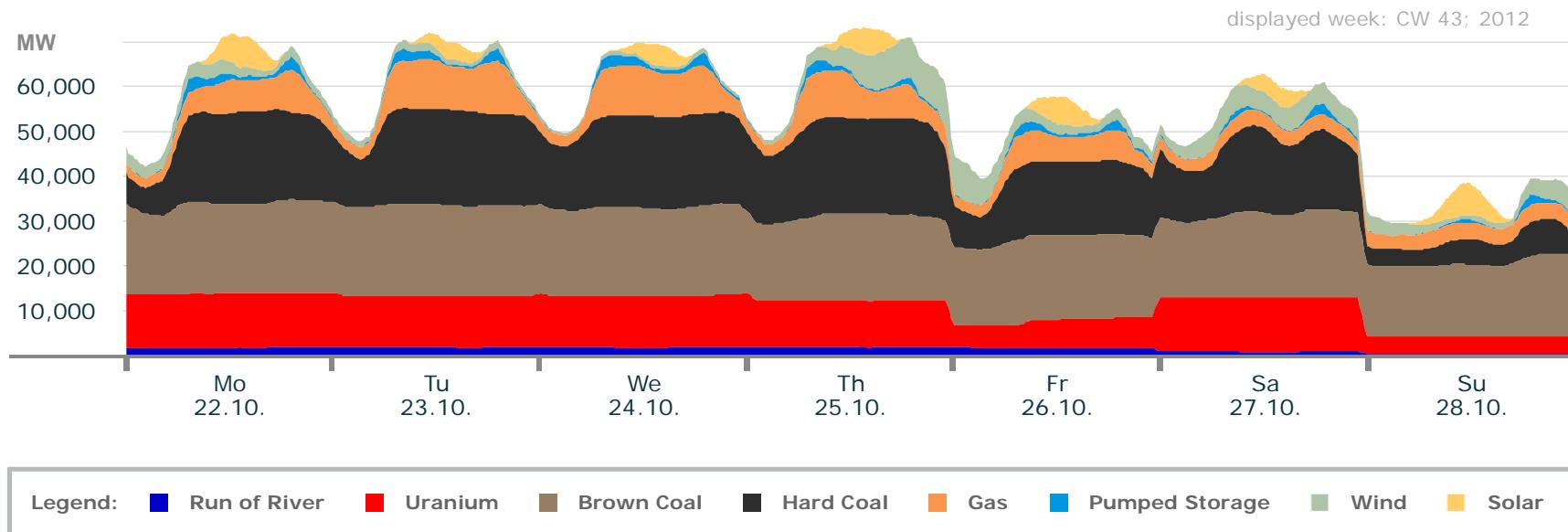
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.1	11.0	15.6	5.4	1.7	0	0.43	0
max. power (GW)	2.3	12.4	19.9	20.5	10.0	3.3	9.8	15.7
weekly energy (TWh)	0.31	2.0	3.1	2.4	0.64	0.14	0.85	0.51

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 43

Actual production

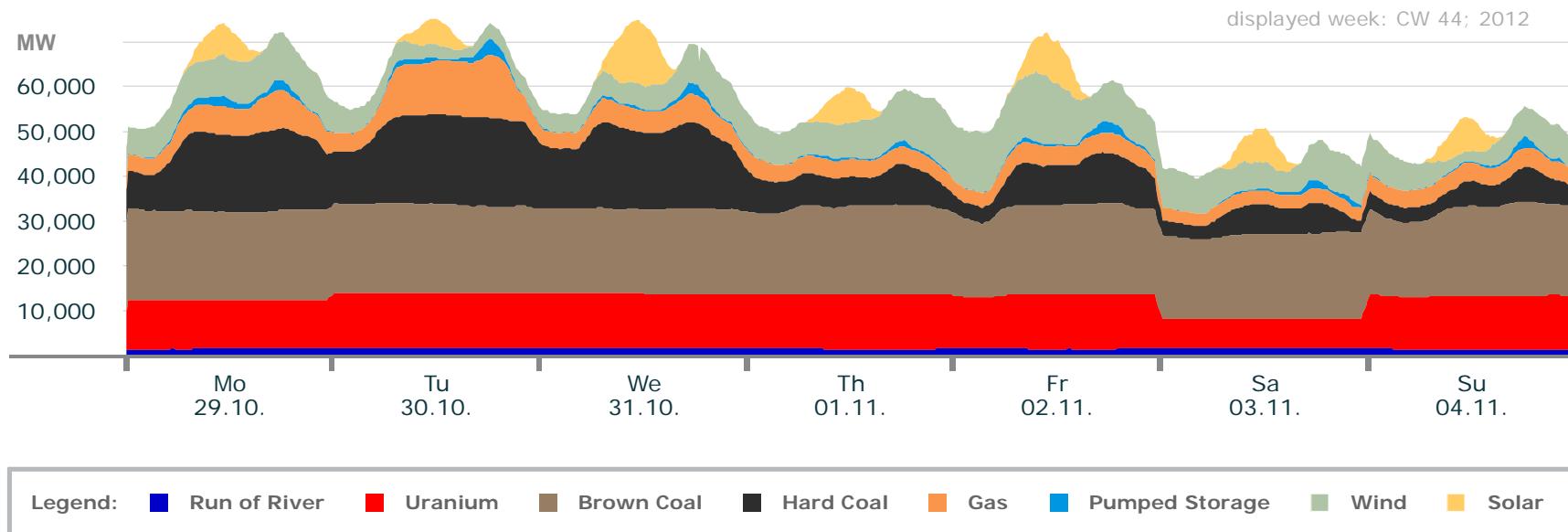


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	0.7	3.8	15.5	3.5	2.1	0	0.12	0
max. power (GW)	2.1	12.2	20.8	21.7	11.7	3.1	9.2	7.2
weekly energy (TWh)	0.14	1.6	3.1	2.6	0.93	0.14	0.44	0.22

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 44

Actual production

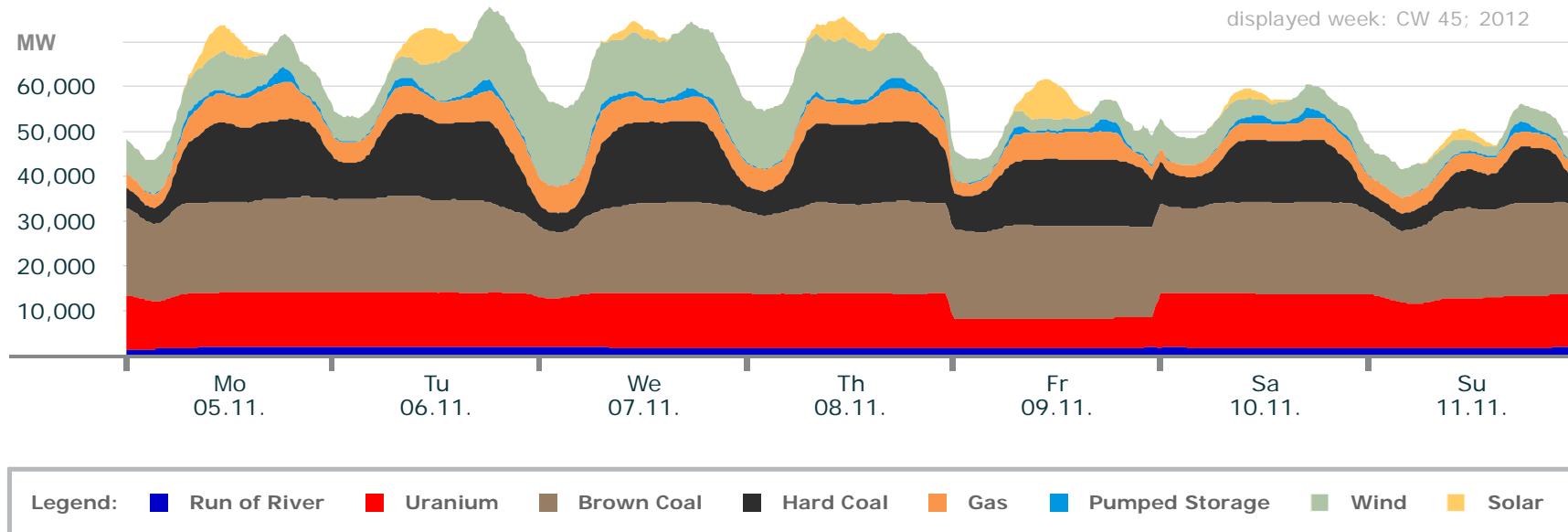


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	0.7	3.8	16.3	2.6	2.8	0	1.7	0
max. power (GW)	1.9	12.2	20.6	19.9	14.1	3.5	15.4	14.0
weekly energy (TWh)	0.28	1.9	3.2	1.8	0.83	0.11	1.23	0.32

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 45

Actual production

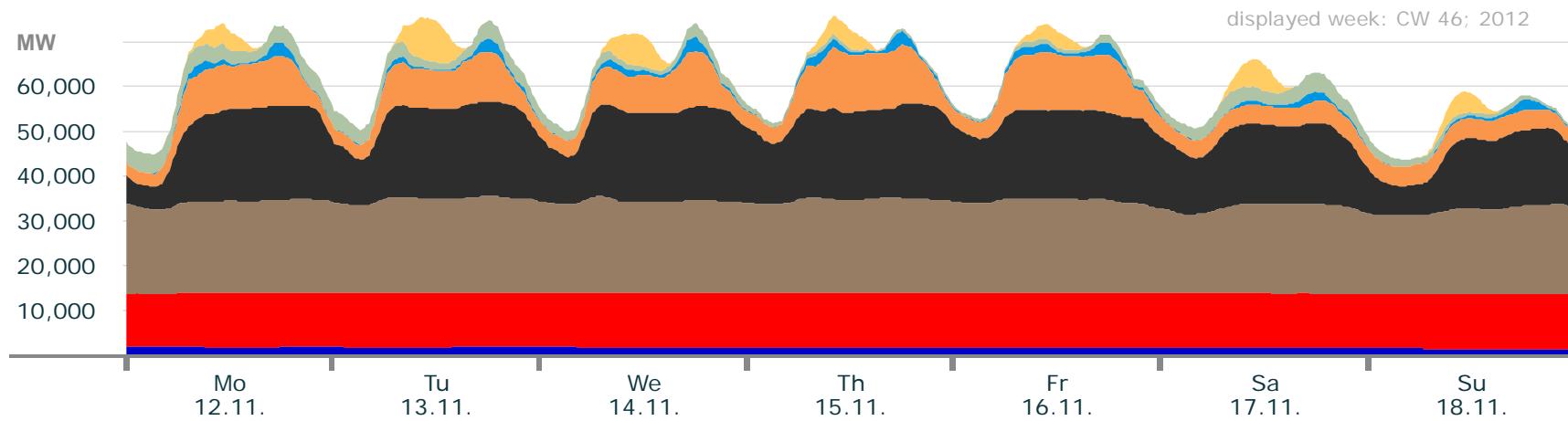


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.6	6.6	14.6	3.5	2.5	0	1.9	0
max. power (GW)	2.2	12.2	21.5	18.5	8.4	3.4	19.7	8.9
weekly energy (TWh)	0.32	1.9	3.3	2.1	0.83	0.13	1.34	0.18

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 46

Actual production



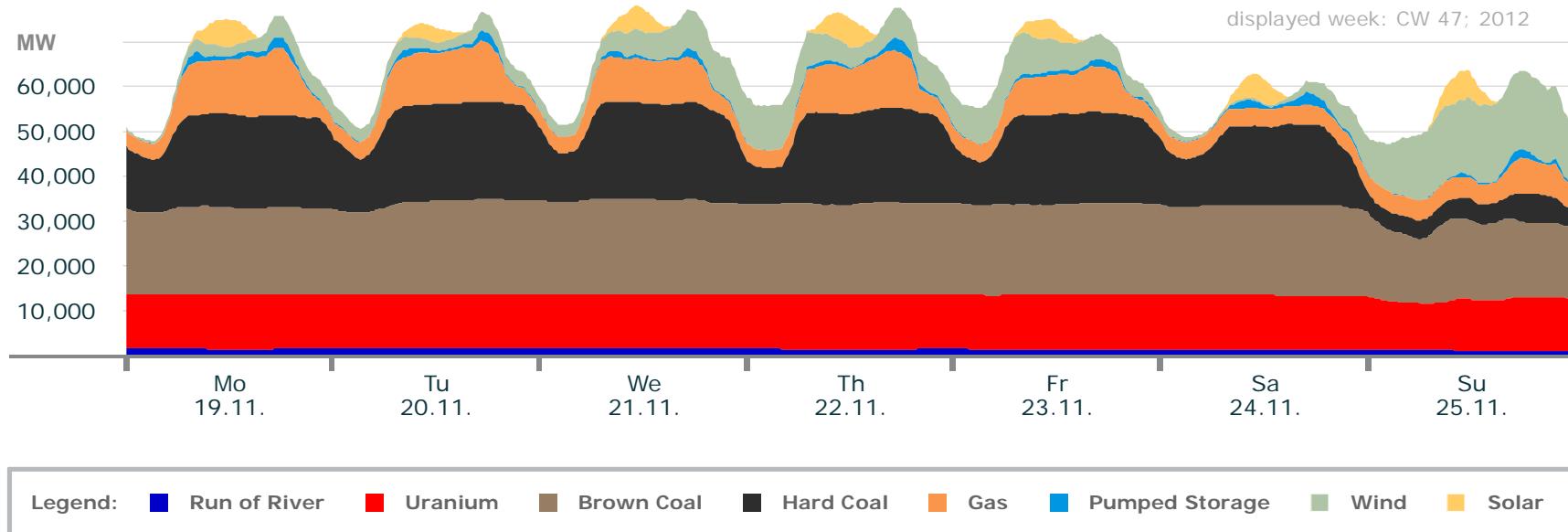
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.6	11.8	17.5	5.1	2.8	0	0.15	0
max. power (GW)	2.0	12.2	21.6	21.2	13.5	3.4	4.4	9.6
weekly energy (TWh)	0.31	2.0	3.4	2.8	1.2	0.14	0.31	0.2

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 47

Actual production

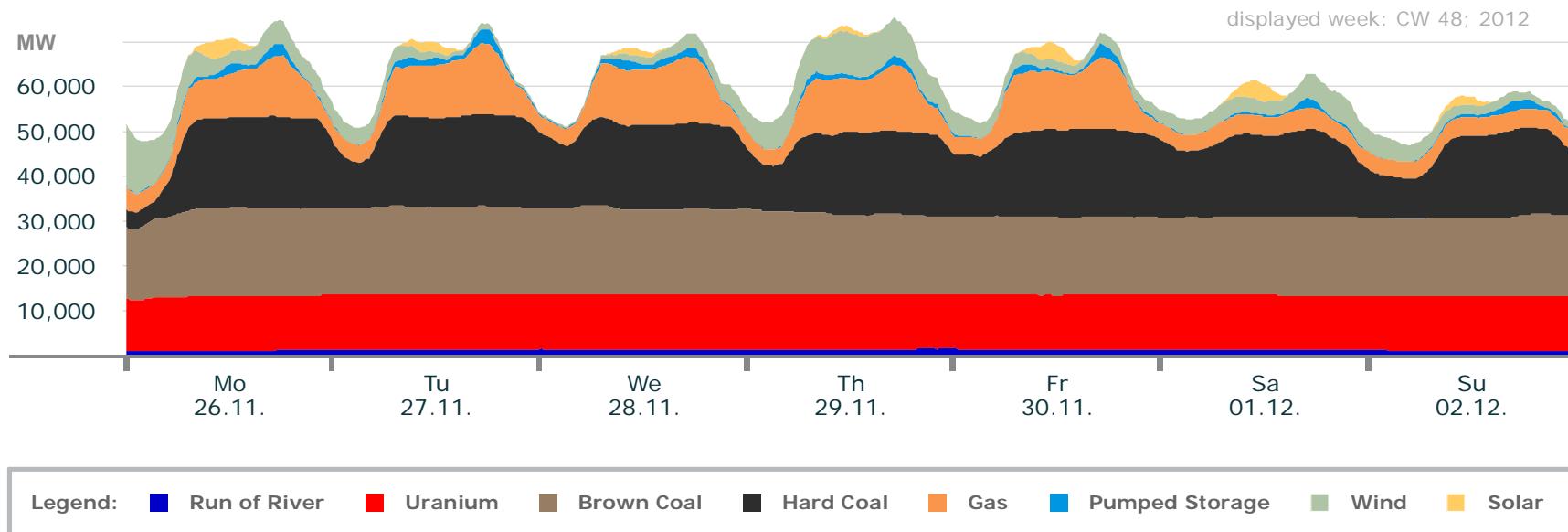


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.23	10.3	14.2	4.1	3.3	0	0.24	0
max. power (GW)	1.75	12.2	21.2	21.8	14.9	2.9	17.8	6.4
weekly energy (TWh)	0.27	2.0	3.3	2.7	1.2	0.12	1.0	0.18

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 48

Actual production

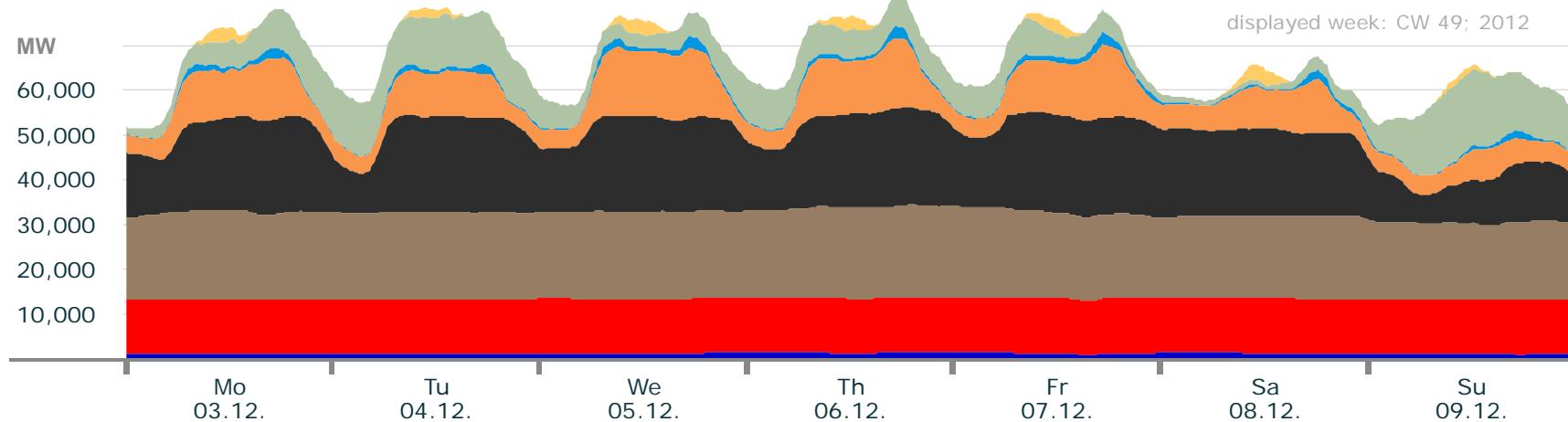


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.24	11.3	15.5	3.9	3.6	0	0.25	0
max. power (GW)	1.69	12.2	19.9	20.5	15.9	3.4	12.2	4.2
weekly energy (TWh)	0.25	2.0	3.1	2.8	1.3	0.14	0.6	0.08

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 49

Actual production



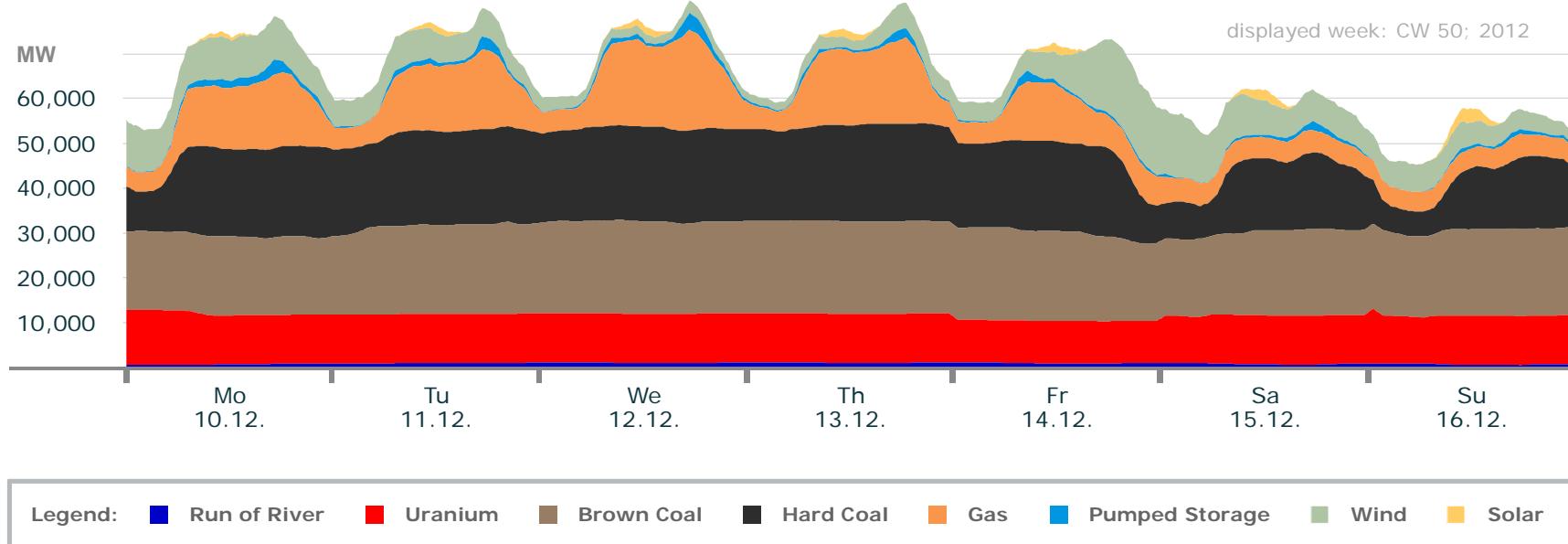
Legend: Run of River Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	0.91	12.1	16.5	6.5	3.8	0	0.73	0
max. power (GW)	1.63	12.2	20.8	22.0	16.4	2.9	17.1	3.6
weekly energy (TWh)	0.24	2.0	3.2	3.0	1.4	0.13	1.2	0.09

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 50

Actual production

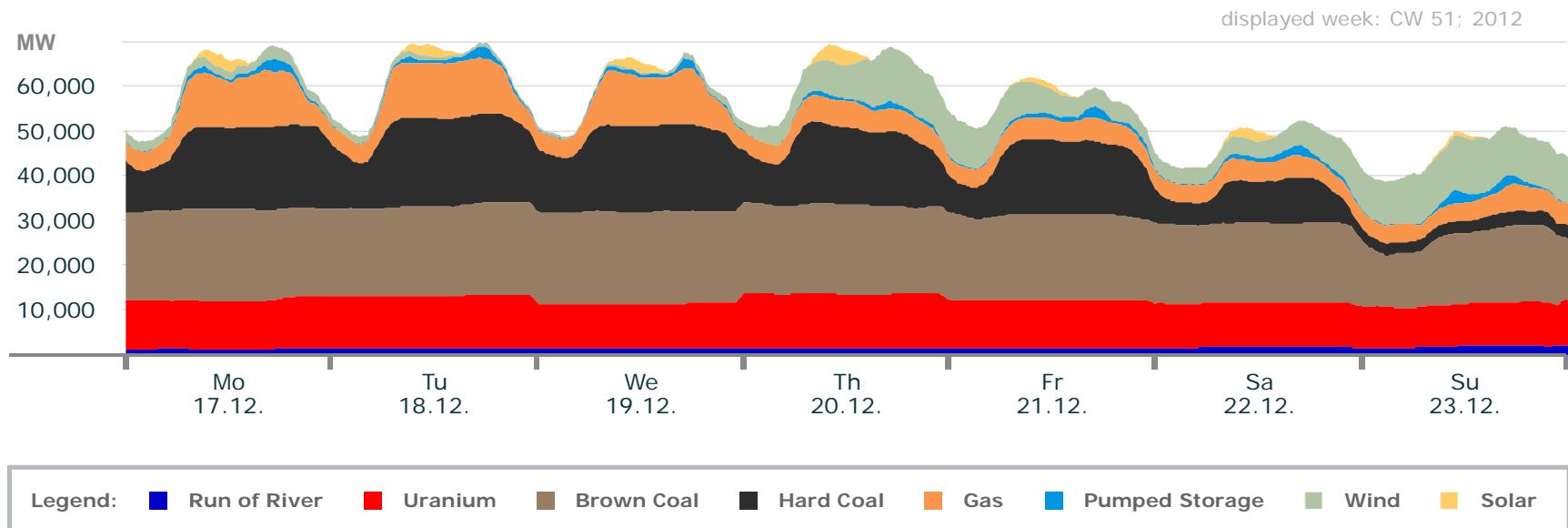


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.12	9.4	16.9	5.5	4.3	0	1.3	0
max. power (GW)	1.67	12.2	20.9	21.7	22.3	3.8	17.9	3.1
weekly energy (TWh)	0.24	1.8	3.2	2.9	1.6	0.14	0.99	0.06

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 51

Actual production

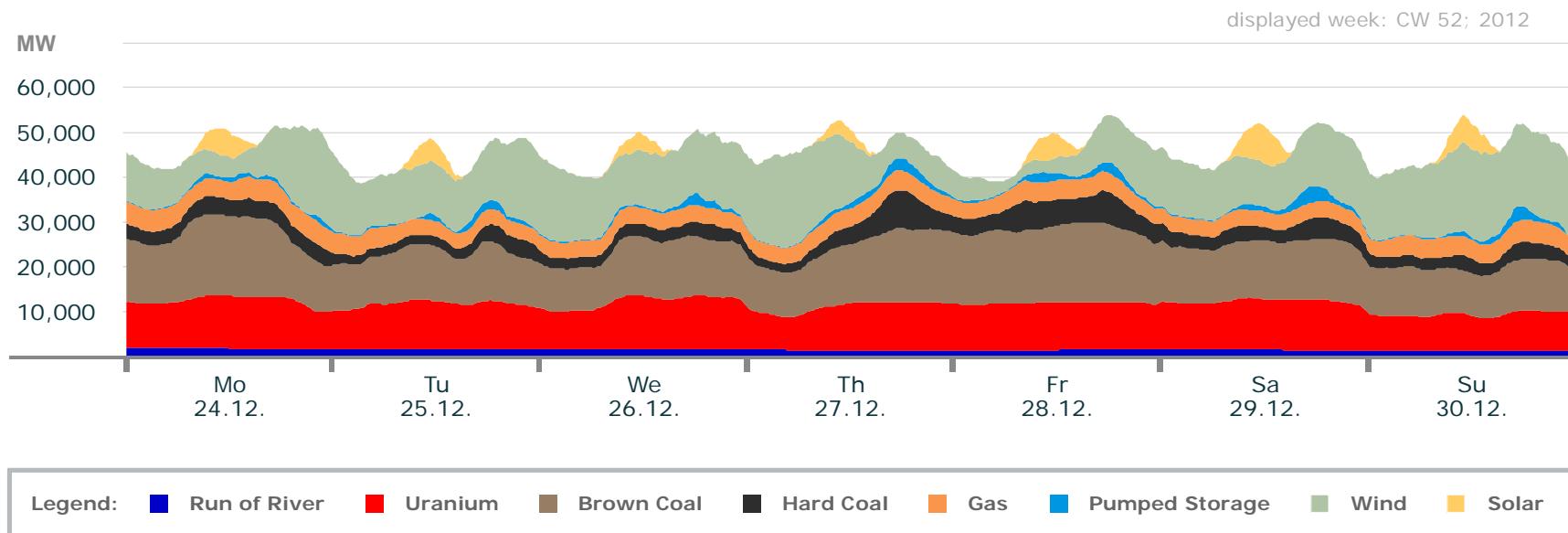


	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.24	8.9	11.4	2.6	3.4	0	0.29	0
max. power (GW)	2.04	12.2	20.8	19.9	12.7	3.1	12.5	3.9
weekly energy (TWh)	0.26	1.8	3.2	2.2	1.1	0.13	0.81	0.07

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Electricity Production in Germany: Calendar Week 52

Actual production



	RoR	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	1.44	7.1	9.3	1.9	3.3	0	2.1	0
max. power (GW)	1.98	12.0	18.2	8.7	5.6	3.6	20.7	8.3
weekly energy (TWh)	0.29	1.7	2.2	0.6	0.7	0.15	2.1	0.17

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

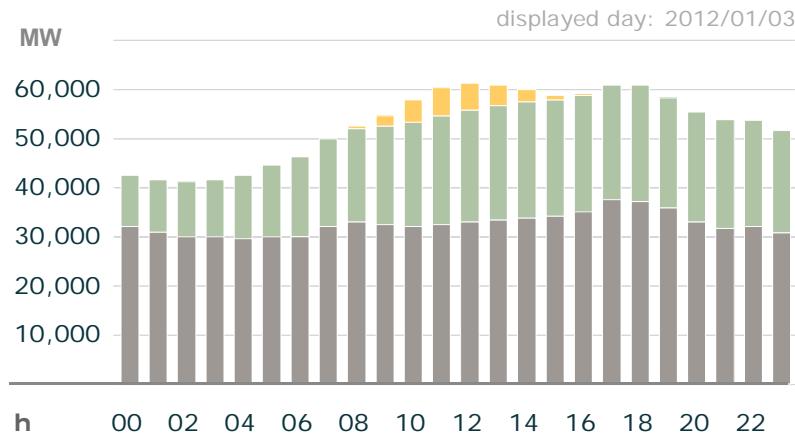
AGENDA

- Annual energies
- Monthly energies
- Weekly energies
- Daily energies
- Annual power curves
- Monthly power curves
- Weekly power curves
- Exemplary daily power curves

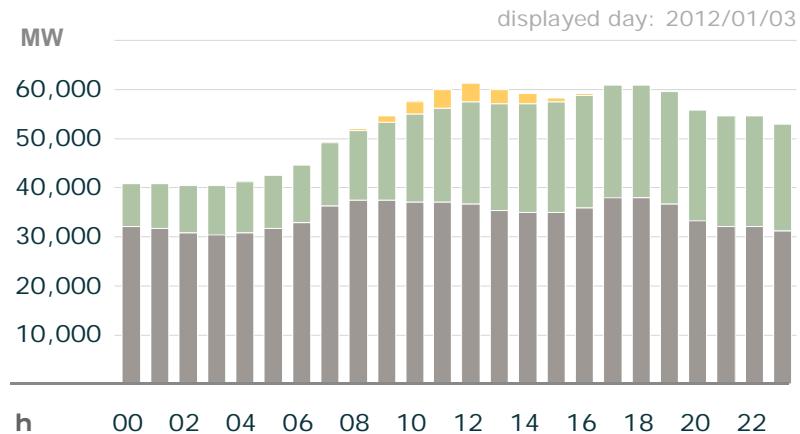
Day of maximum peak wind power production (in GW)

Tuesday 3rd of January

Actual production



Planned production



Legend: Conventional > 100 MW Wind Solar

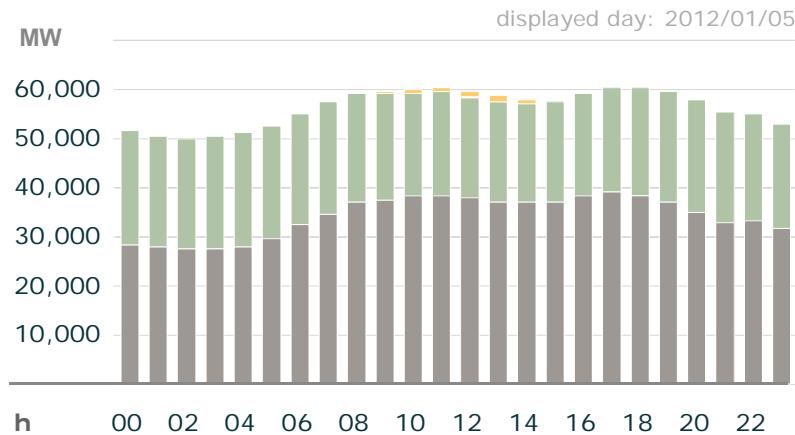
- Solar: max. 5.6 GW; 24.5 GWh
- Wind: max. 24.1 GW at 16:45 (+1:00); 463 GWh
- Conventional: max. 37.4 GW; 782 GWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

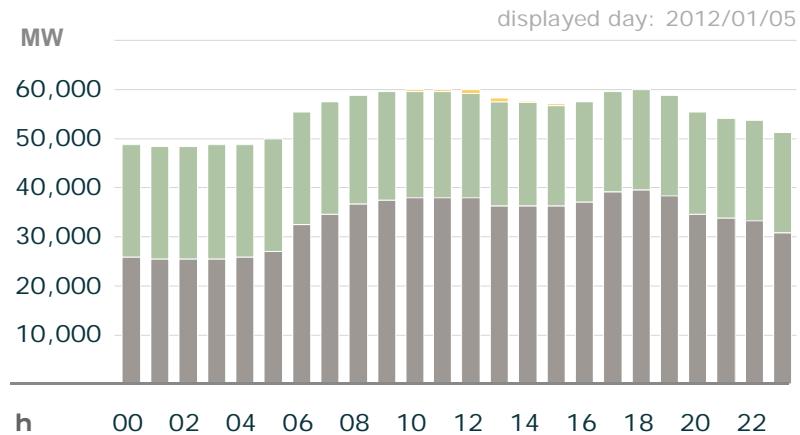
Date of maximum total wind power production (in GWh)

Thursday 5rd of January

Actual production



Planned production



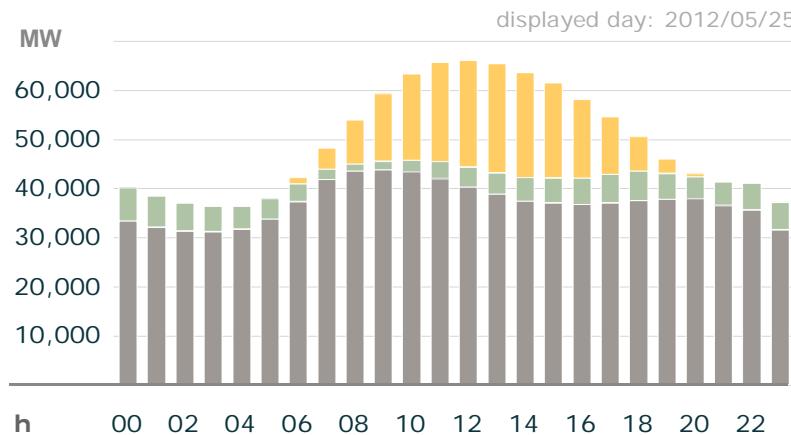
Legend: Conventional > 100 MW Wind Solar

- Solar: max. 1.2 GW; 5.1 GWh
- Wind: max. 23.4 GW at 4:15 (+1:00); 526 GWh
- Conventional: max. 39.1 GW; 822 GWh

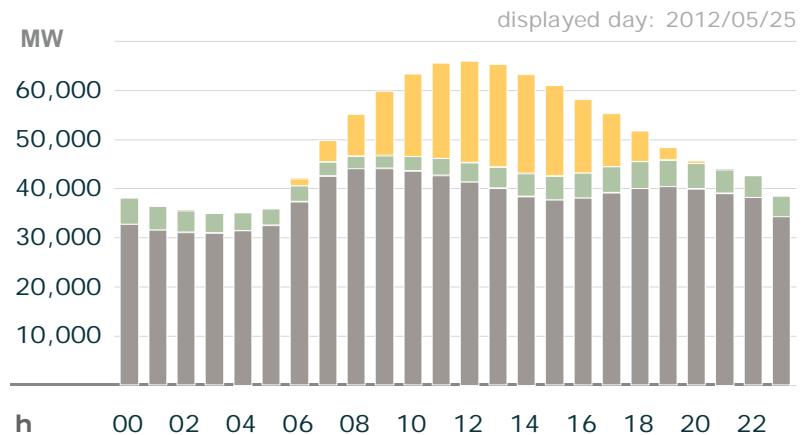
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Date of maximum total and peak solar power production (both in GW and GWh): Friday 25th of May

Actual production



Planned production



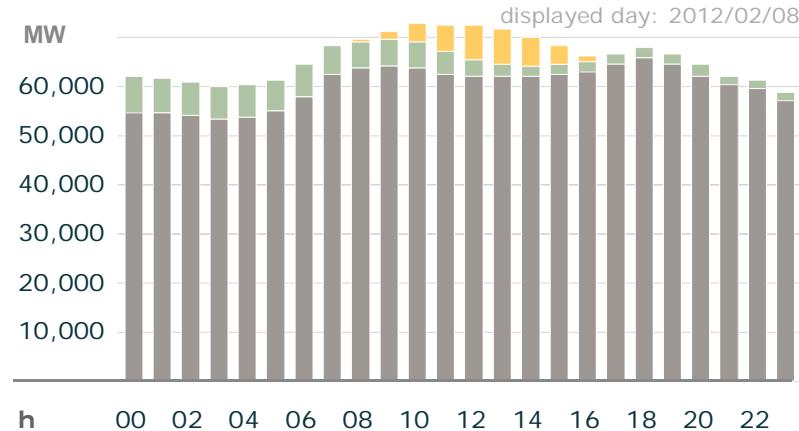
Legend: Conventional > 100 MW Wind Solar

- Solar: max. 22.4 GW at 12:45 (+2:00); 189 GWh
- Wind: max. 7.0 GW; 108 GWh
- Conventional: max. 44.1 GW; 892 GWh

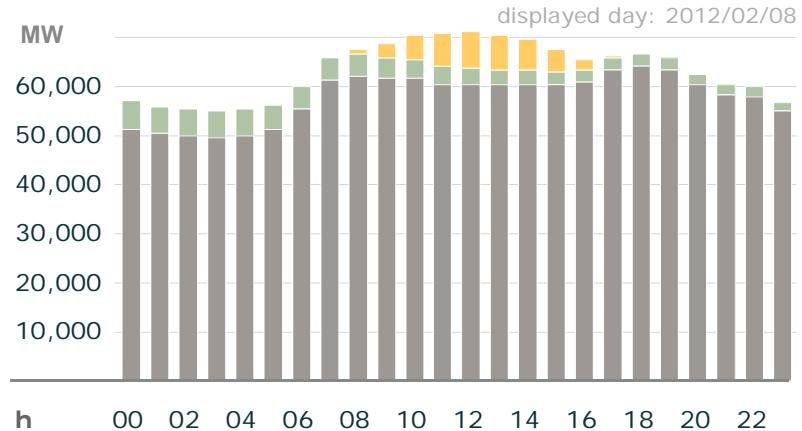
Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Date of maximum total and peak conventional power production (both in GW and GWh): Wed. 8th of February

Actual production



Planned production

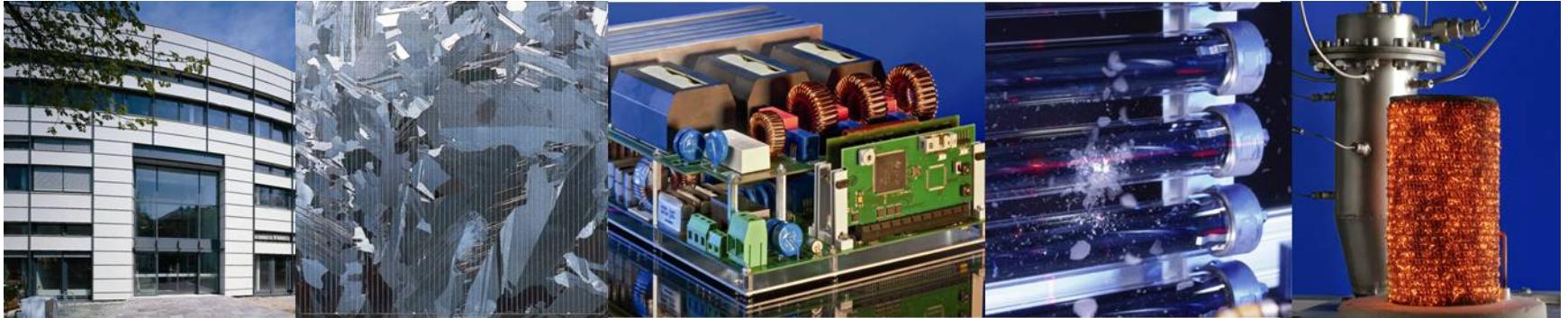


Legend: Conventional > 100 MW Wind Solar

- Solar: max. 7.3 GW; 37 GWh
- Wind: max. 7.4 GW; 99 GWh
- Conventional: max. 65.9 GW um 18:00 (+1:00); 1 446 GWh

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

Thank you for your Attention!



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