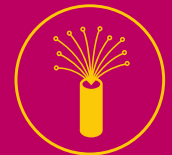
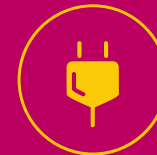


PROGRESS IN DATA ACCURACY AND FREQUENCY IN AUSTRIA

DSO VIEW

PETER JAKWERTH

12.06.2018



AGENDA

PROGRESS IN DATA ACCURACY AND FREQUENCY IN AUSTRIA

-
- 1 Development Load Profiles
 - 2 Progress Austrian Data Provision
 - 3 Recent Developments
-

AGENDA

PROGRESS IN DATA ACCURACY AND FREQUENCY IN AUSTRIA

- 1 Development Load Profiles
- 2 Progress Austrian Data Provision
- 3 Recent Developments

DEVELOPMENT LOAD PROFILES

- 6 different LP for NDM Consumers:
 - Process: cooking, warm water, small industry
 - Heating: multi-family house (flat), single-family house, small industry
- 2008 Expert Group: Improvements
 - Lowering „summer consumption“ = „D“
 - Steepened = little improvement „B“ + „C“
 - smoothing temperature

Neue Lastprofile bei WEG

Gegenüberstellung Übergabemenge - errechnete H SLP

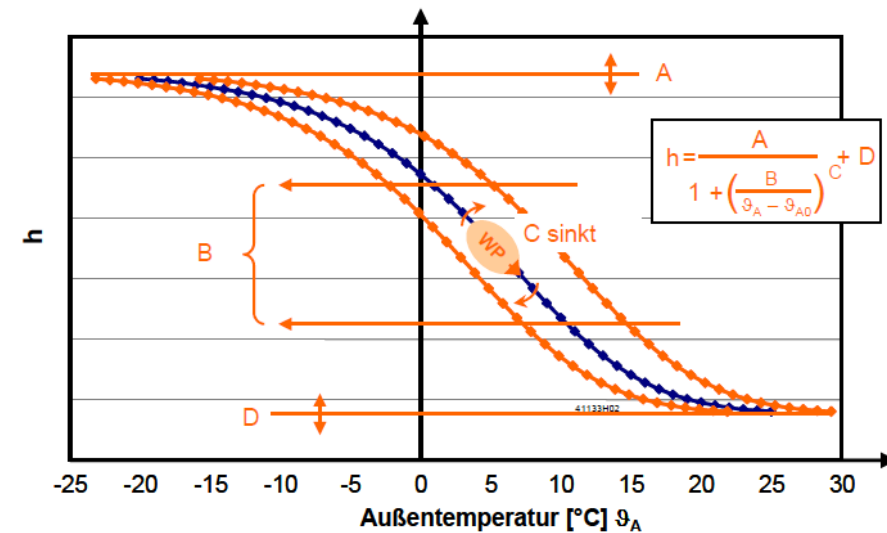
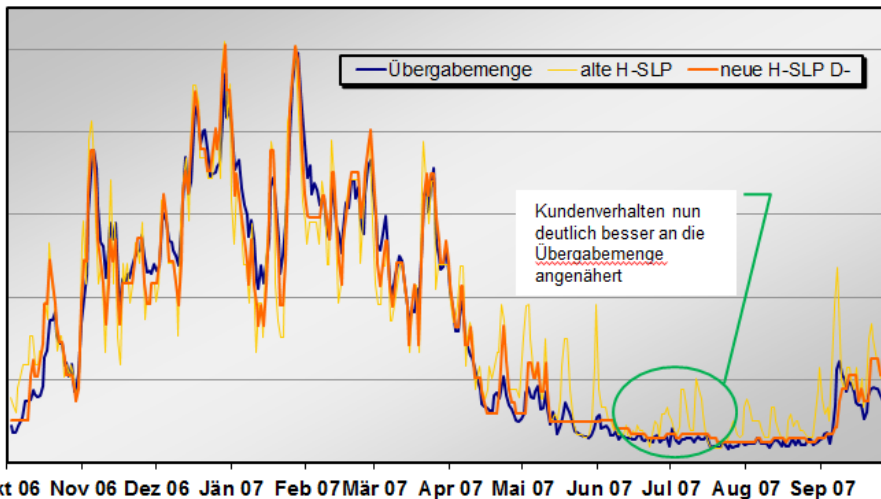


Abbildung 6: Einfluss der Parameter A, B, C und D auf den Funktionsverlauf*

DEVELOPMENT LOAD PROFILES

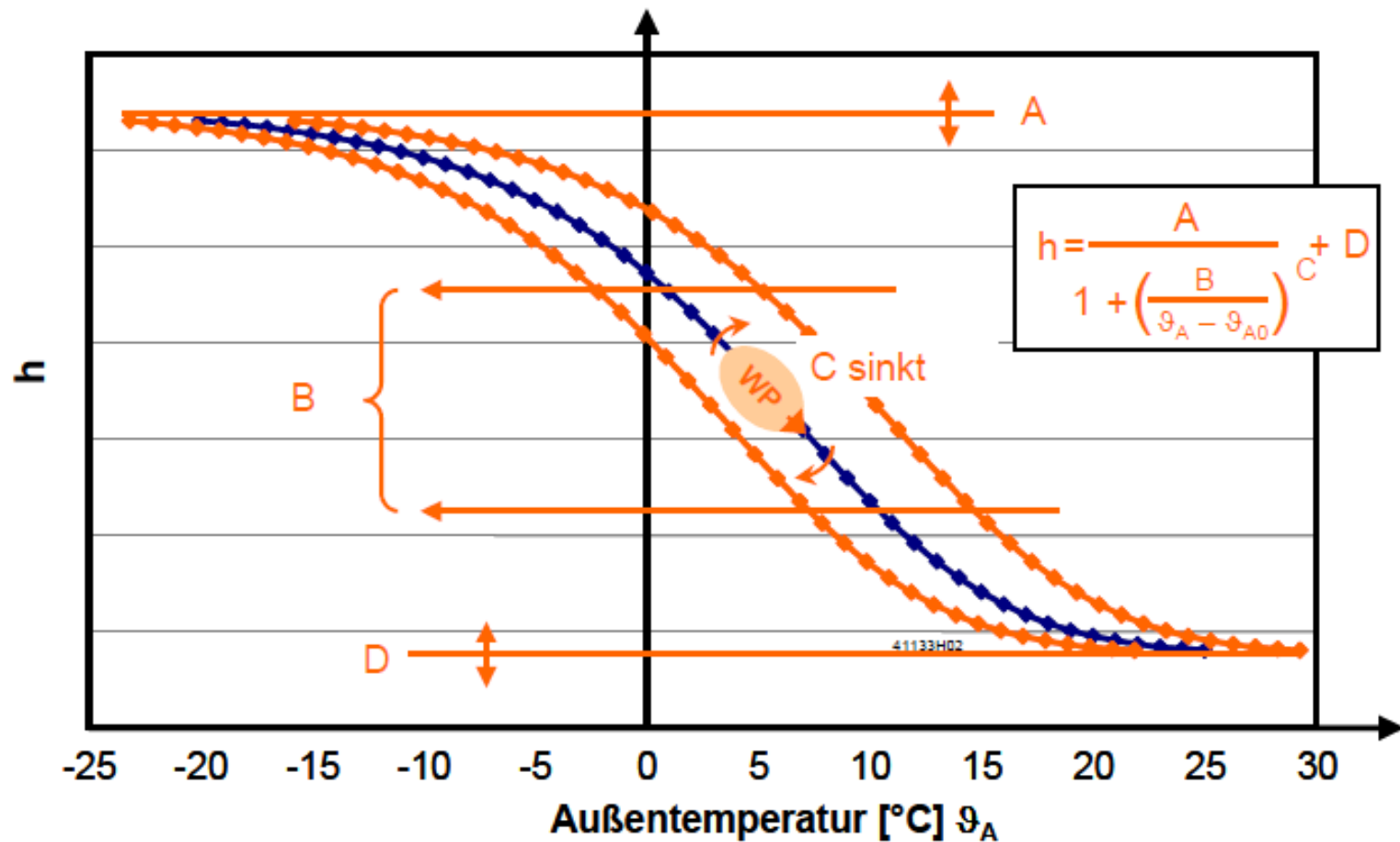
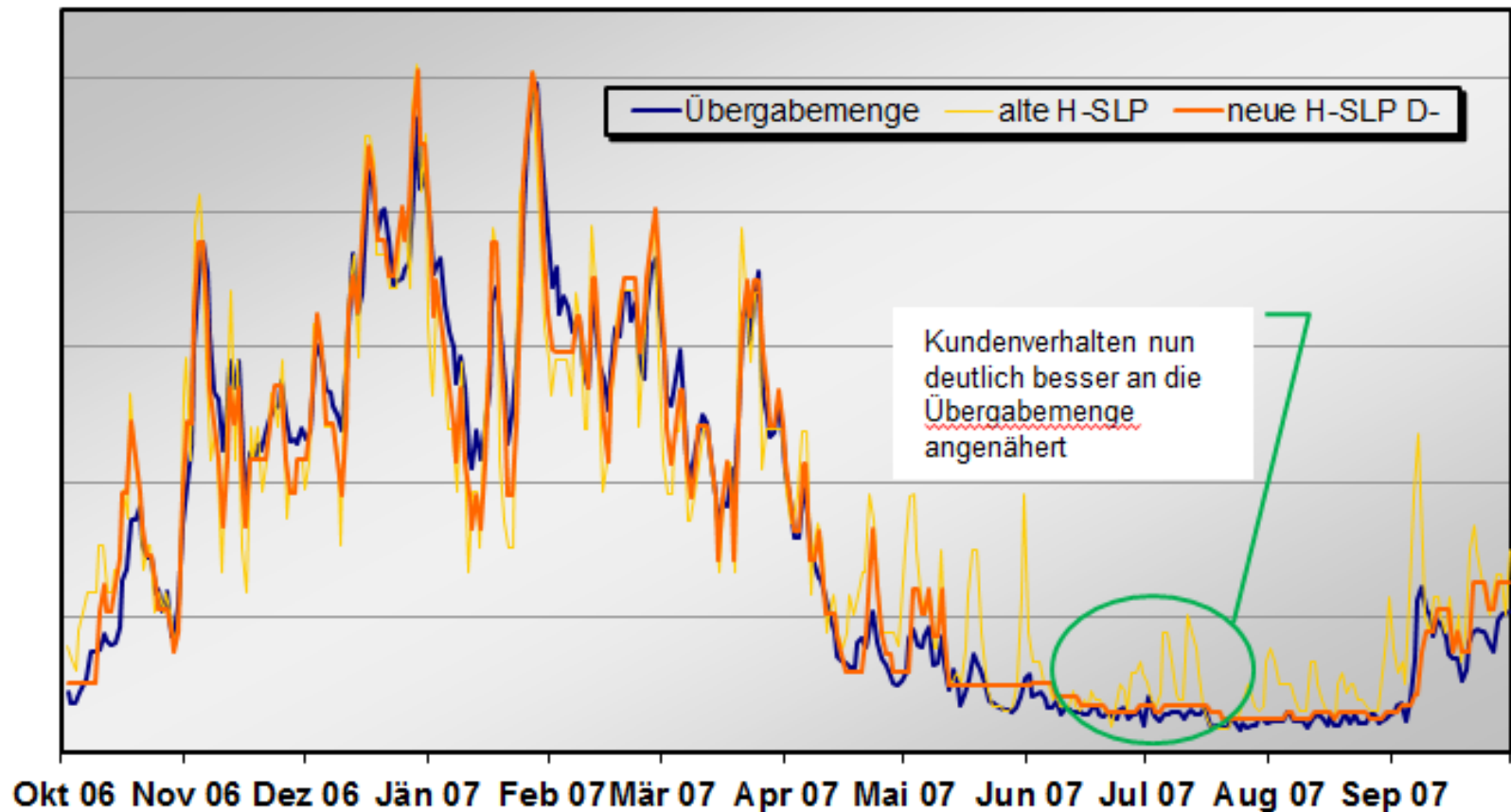


Abbildung 6: Einfluss der Parameter A, B, C und D auf den Funktionsverlauf*

Neue Lastprofile bei WEG

Gegenüberstellung Übergabemenge - errechnete H SLP



AGENDA

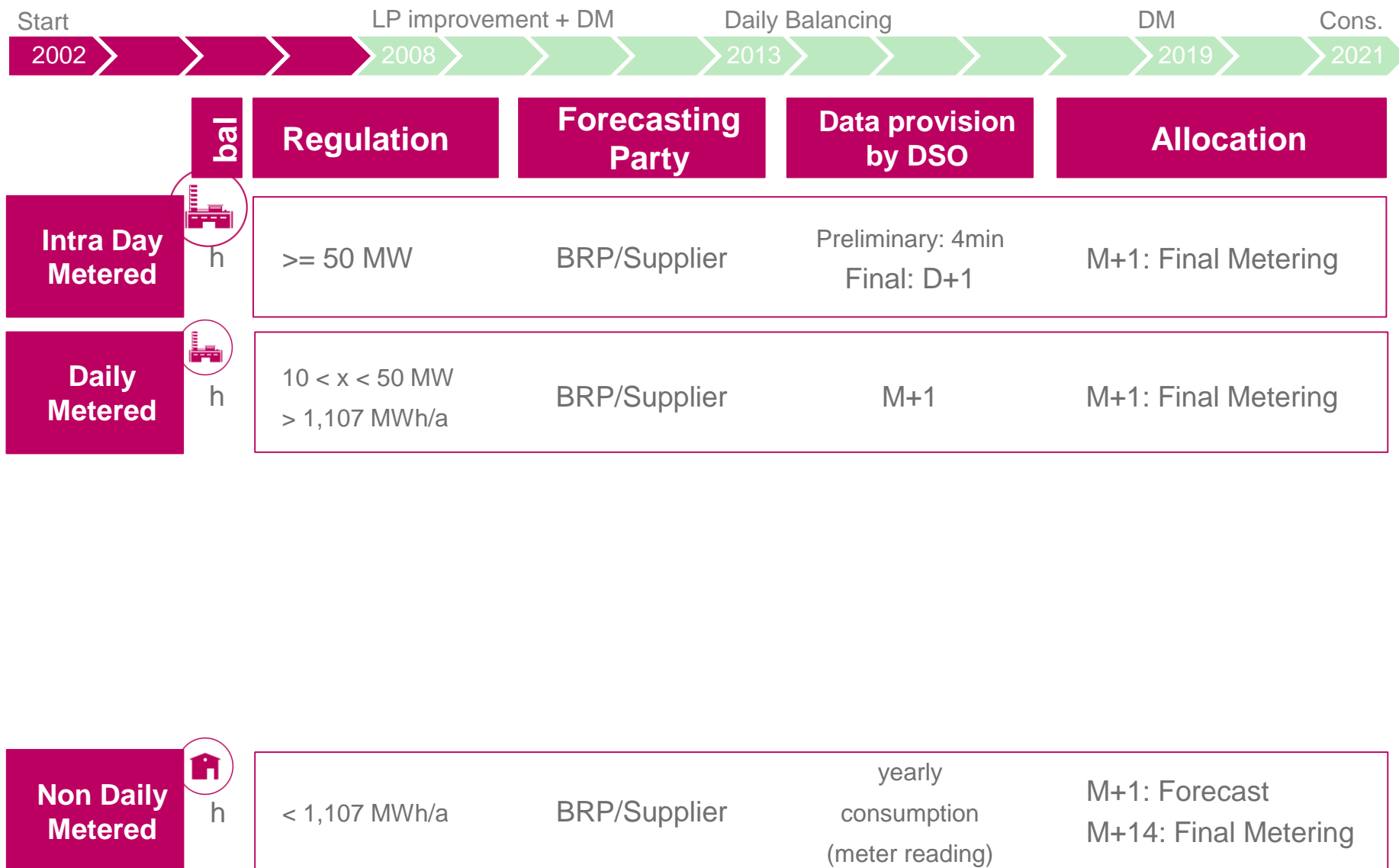
PROGRESS IN DATA ACCURACY AND FREQUENCY IN AUSTRIA

1 Development Load Profiles

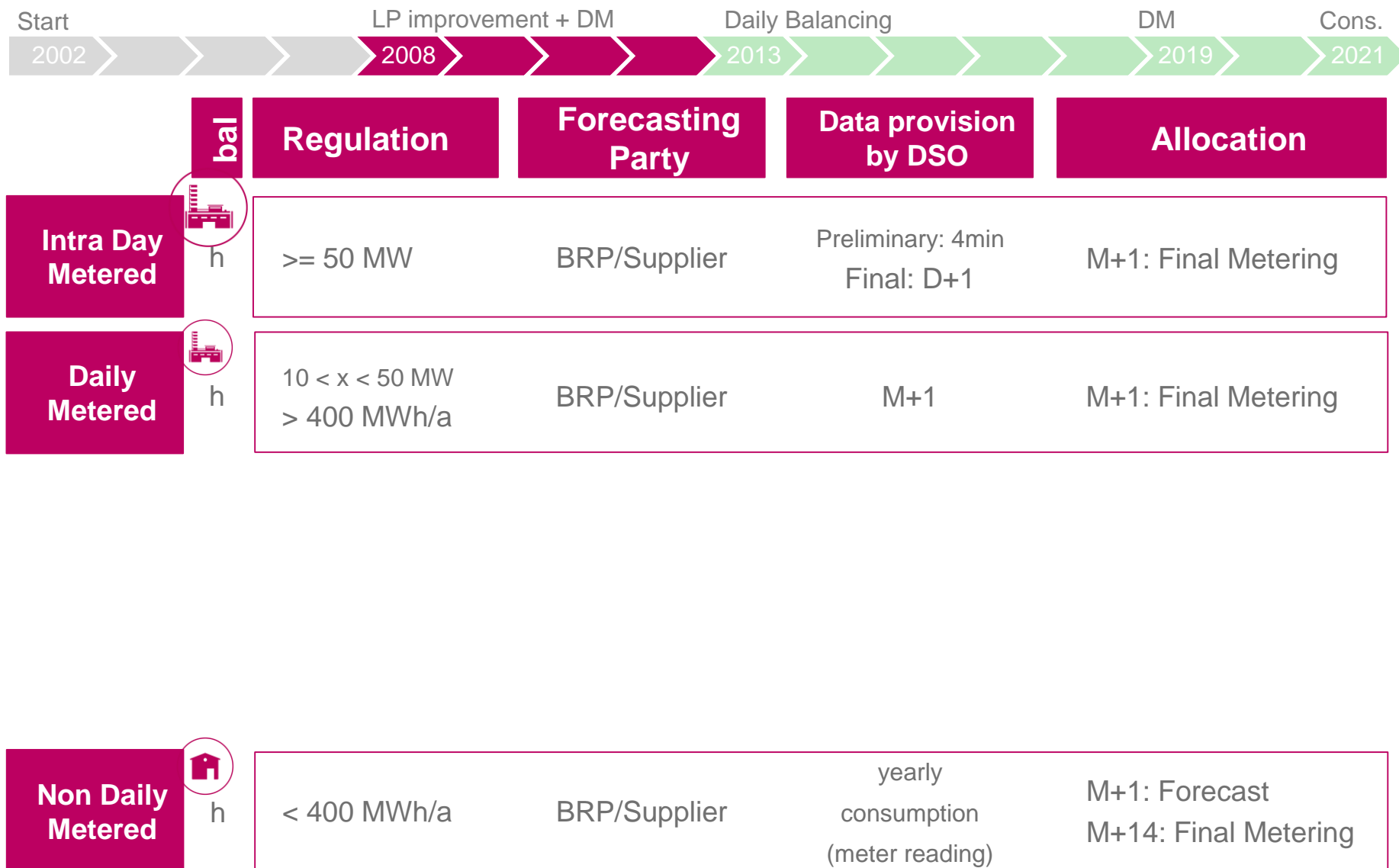
2 Progress Austrian Data Provision

3 Recent Developments

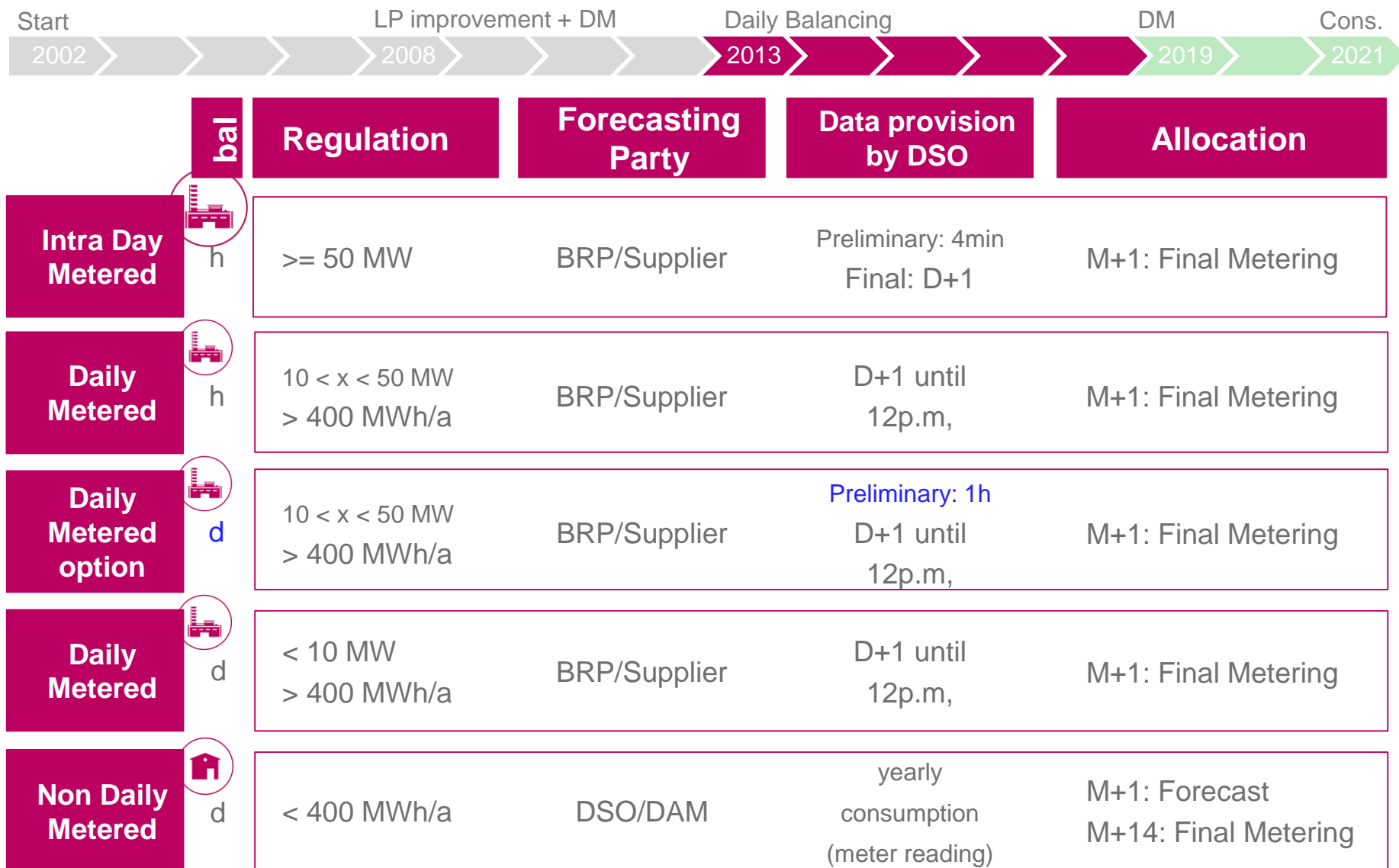
PROGRESS AUSTRIA



PROGRESS AUSTRIA







PROGRESS AUSTRIA



PROGRESS AUSTRIA



	bal	Regulation	Forecasting Party	Data provision by DSO	Allocation
Intra Day Metered	 h	≥ 50 MW	BRP/Supplier	Preliminary: 4min Final: D+1	M+1: Final Metering
Daily Metered option	 d	$10 < x < 50$ MW > 400 MWh/a	BRP/Supplier	Preliminary: 1h D+1 until 12p.m,	M+1: Final Metering
Daily Metered	 d	< 10 MW > 400 MWh/a	BRP/Supplier	D+1 until 12p.m,	M+1: Final Metering
Non Daily Metered	 d	< 400 MWh/a	DSO/DAM	yearly consumption (meter reading)	M+1: Forecast M+14: Final Metering

AGENDA

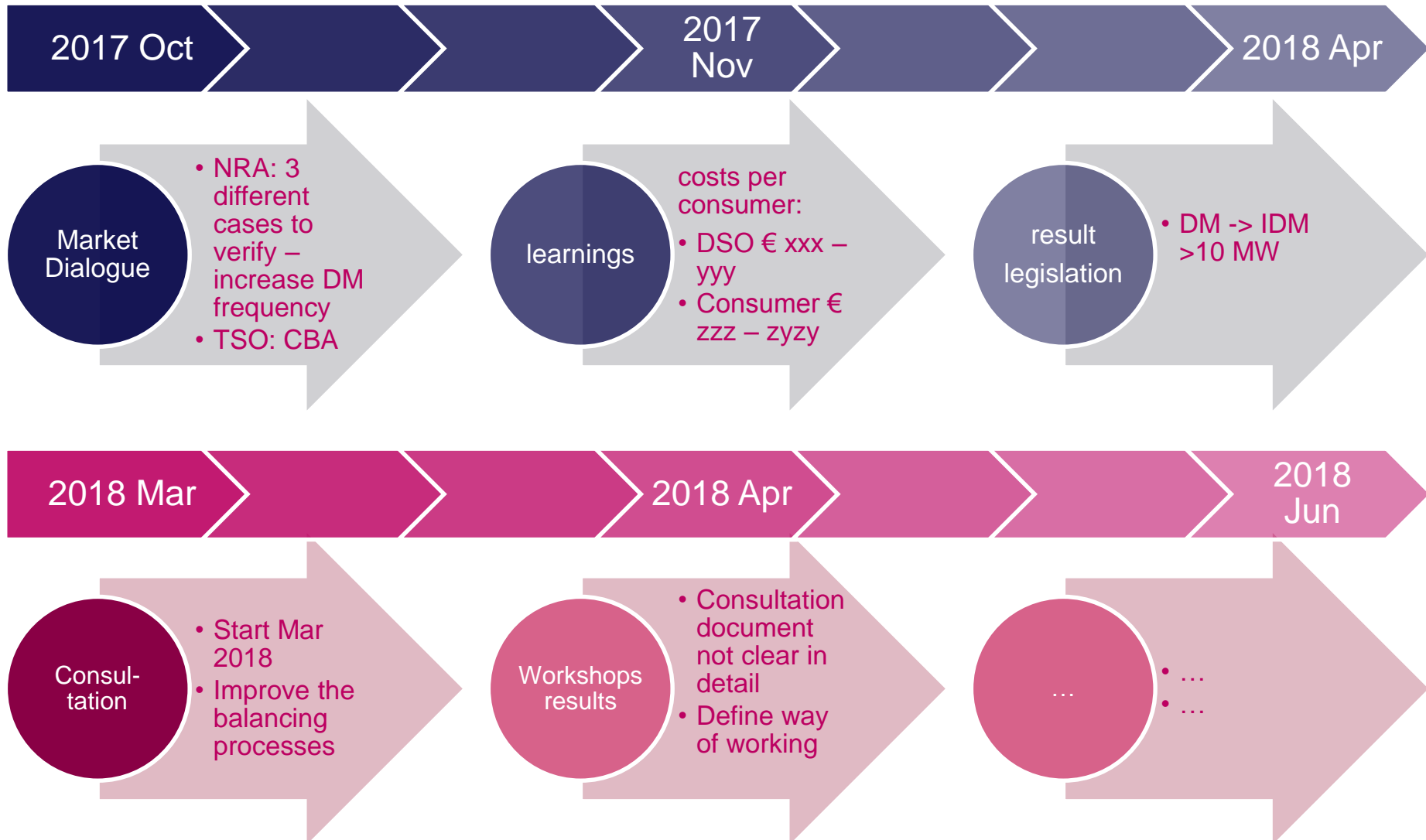
PROGRESS IN DATA ACCURACY AND FREQUENCY IN AUSTRIA

1 Development Load Profiles

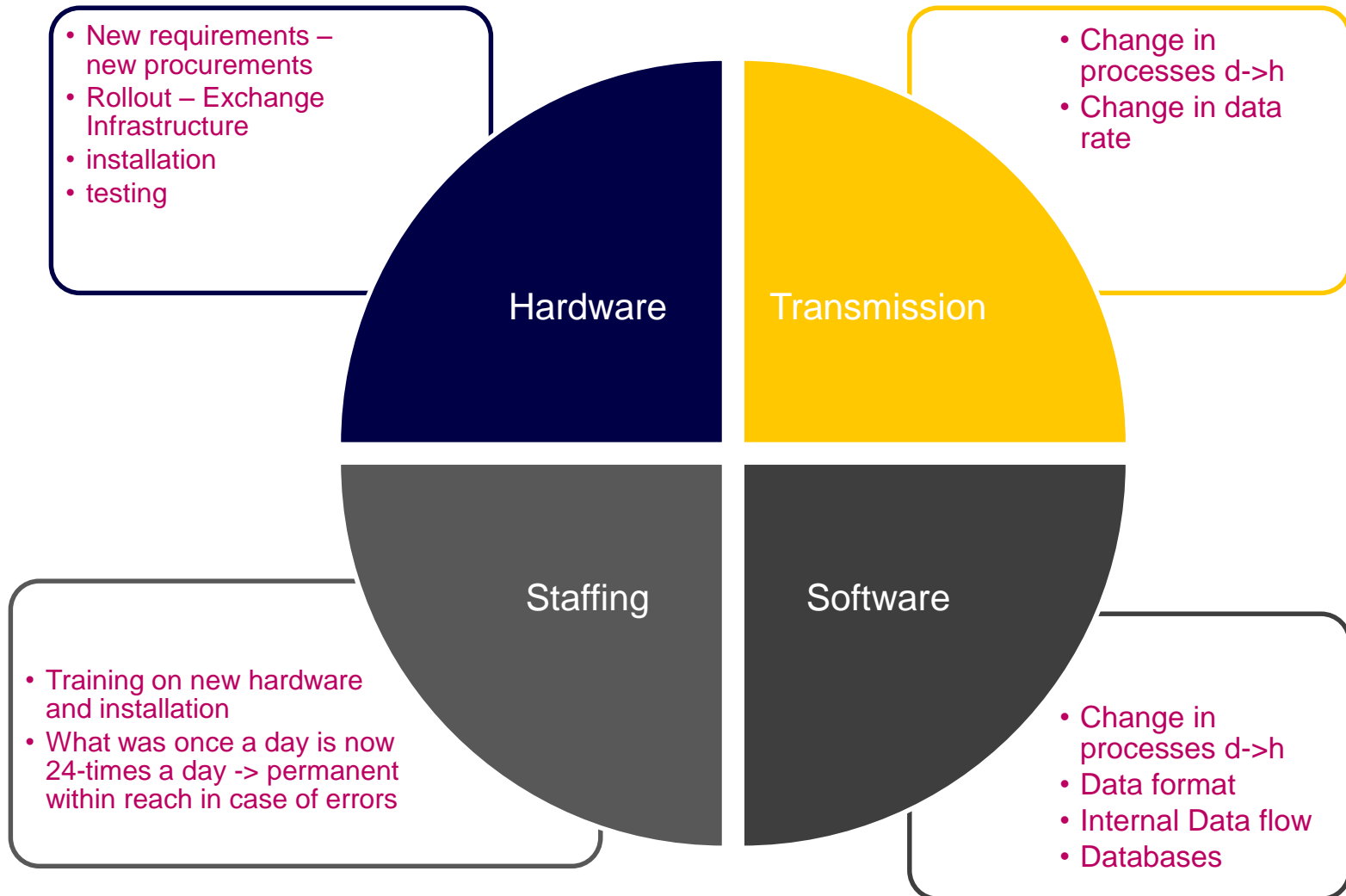
2 Progress Austrian Data Provision

3 Recent Developments

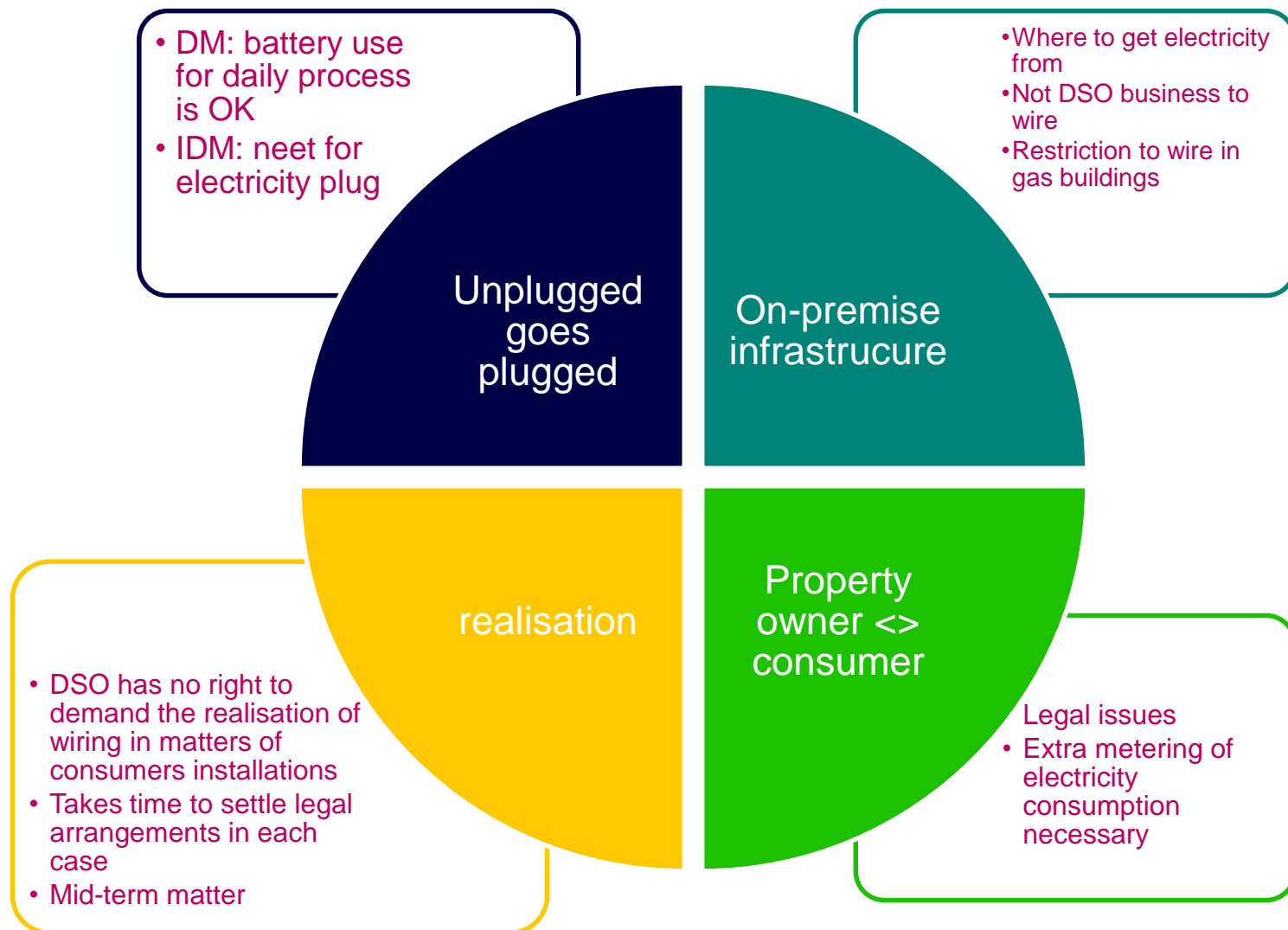
RECENT DEVELOPMENTS - CBA'S & CONSULTATION PROCESS



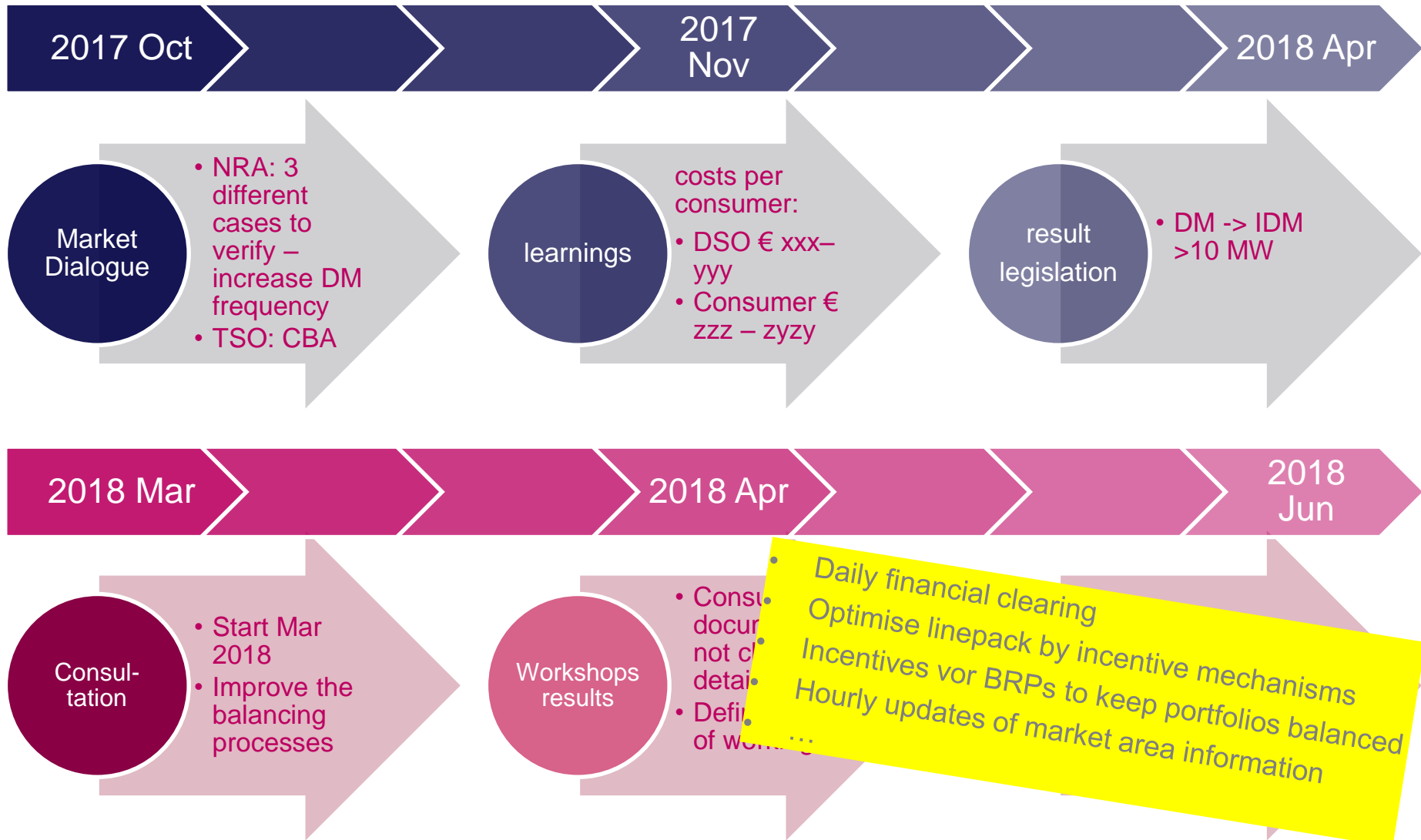
RECENT DEVELOPMENTS – ISSUES DM → IDM - DSO



RECENT DEVELOPMENTS – ISSUES DM → IDM - CONSUMER



RECENT DEVELOPMENTS - CBA'S & CONSULTATION PROCESS



WIENER NETZE

IHR ANSPRECHPARTNER

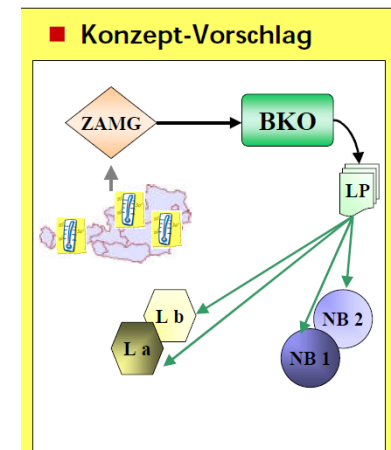
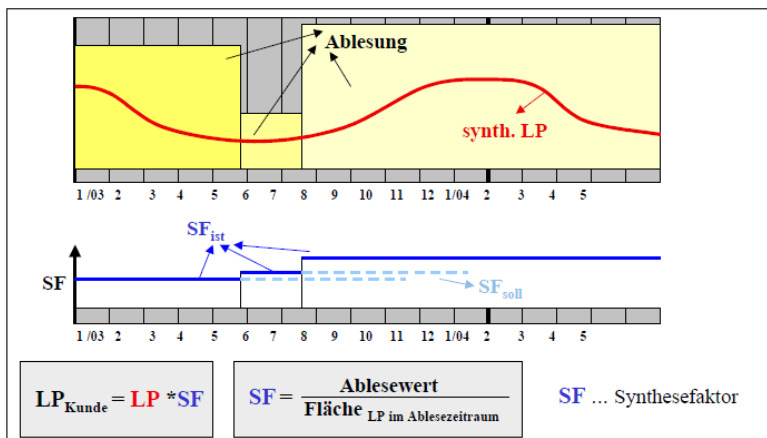
THANK YOU FOR YOUR ATTENTION

Jakwerth Peter
Technology Management
Tel. +43 664 623 3133
E-Mail peter.jakwerth@wienernetze.at

BACK UP

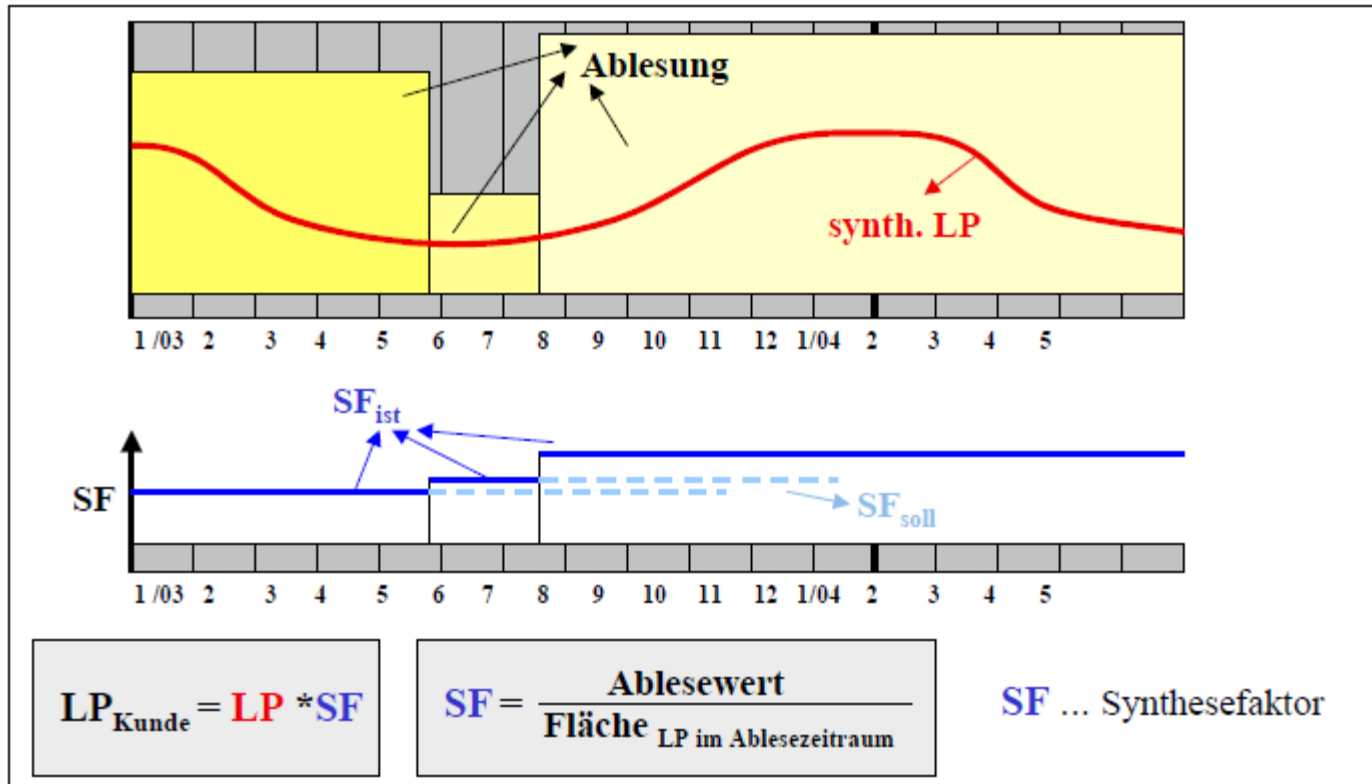
DAILY PROCESS – NDM FORECAST BY DSO + DAM

- Basic data for SLP forecast
 - „Consumption factor“ of NDM customer
 - Consumption based on meter readings / LP value = consumption factor
 - 6 different LP:
 - Process: cooking, warm water, small industry
 - Heating: multi-family house (flat), single-family house, small industry
 - Process:
 - DSO → DAM: Aggregated „consumption factor“ per LP per Supplier
 - DAM → BRP: NDM forecast per Supplier
 - Aggregated consumption factor x LP forecast (based on actual temperature forecast) = NDM forecast



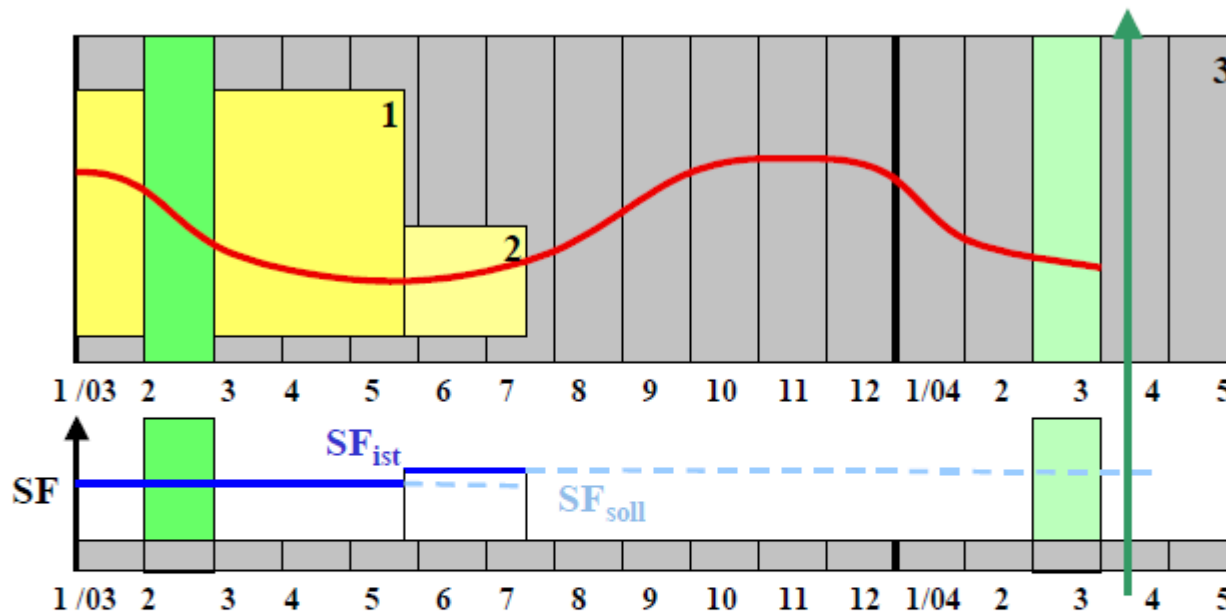
1/2

OVERVIEW



EXPLANATION „CONSUMPTION FACTOR“ 2/2

HOW TO APPLY



■ 1. Clearing:

$$LP_{Kunde} = LP_{3/04} * SF_{soll, 2}$$

■ 2. Clearing:

$$LP_{Kunde} = LP_{2/03} * SF_{ist, 1}$$

TEMPERATURE ZONES

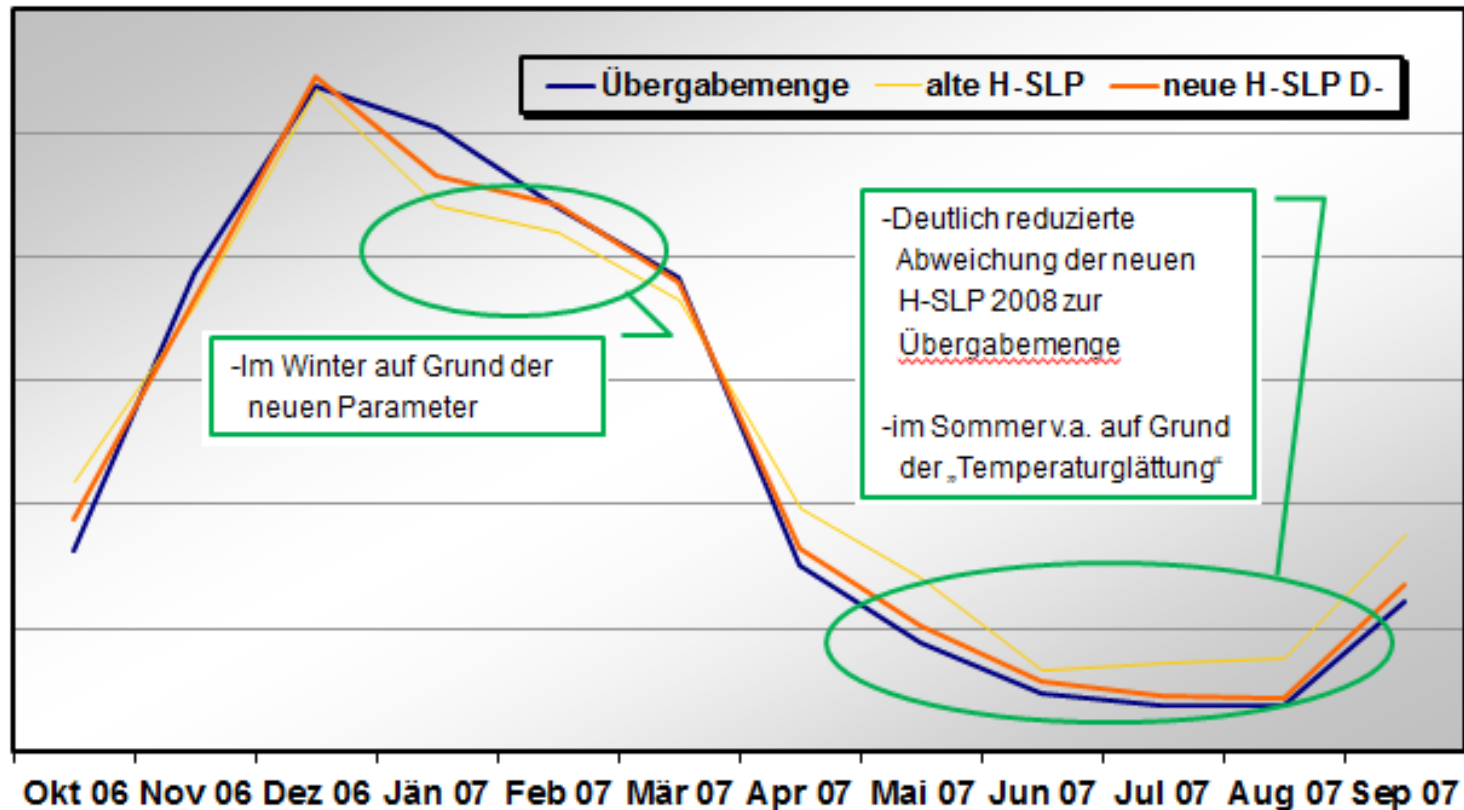
Nummerierung der Messstellen		
Nummer	BL	Messstelle
01	W	Hohe Warte
02	B	Eisenstadt
03	B	Kleinzicken
04	B	Lutzmannsburg
05	NÖ	St. Pölten
06	NÖ	Allentsteig
07	NÖ	Lilienfeld
08	OÖ	Linz-Hörsching
09	S	Salzburg-Feisaal
10	S	Zell/See
11	K	Klagenfurt
12	K	Spital/Drau
13	K	St. Andrä i. L.
14	STMK	Graz
15	STMK	Aigen im Ennstal
16	STMK	Kapfenberg
17	T	Innsbruck
18	T	Kufstein
19	T	Reutte
20	V	Bregenz
21	V	Feldkirch



LOAD PROFILES – IMPROVEMENT – MONTHLY BASIS

Neue Lastprofile bei WEG

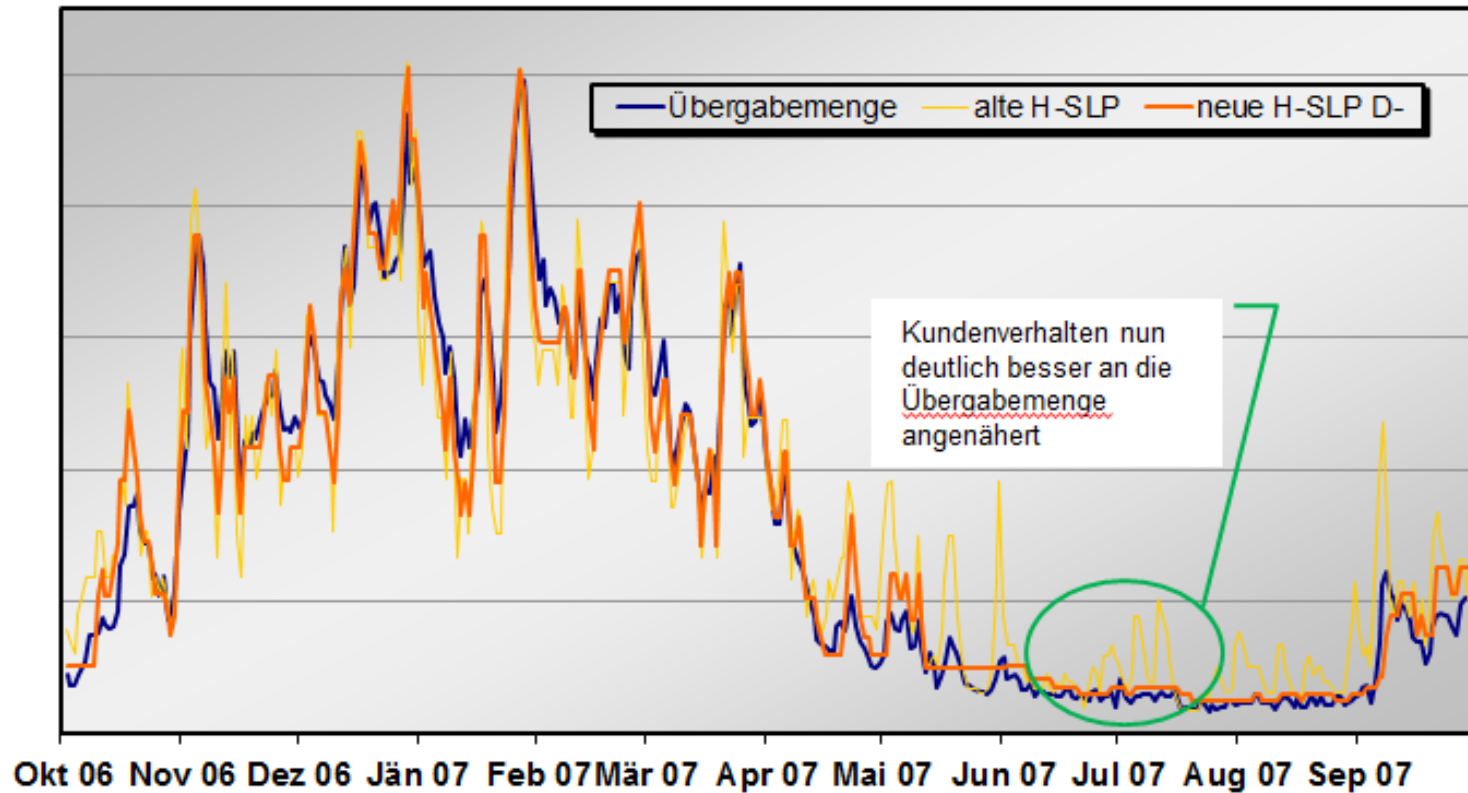
Gegenüberstellung Übergabemenge - errechnete H SLP

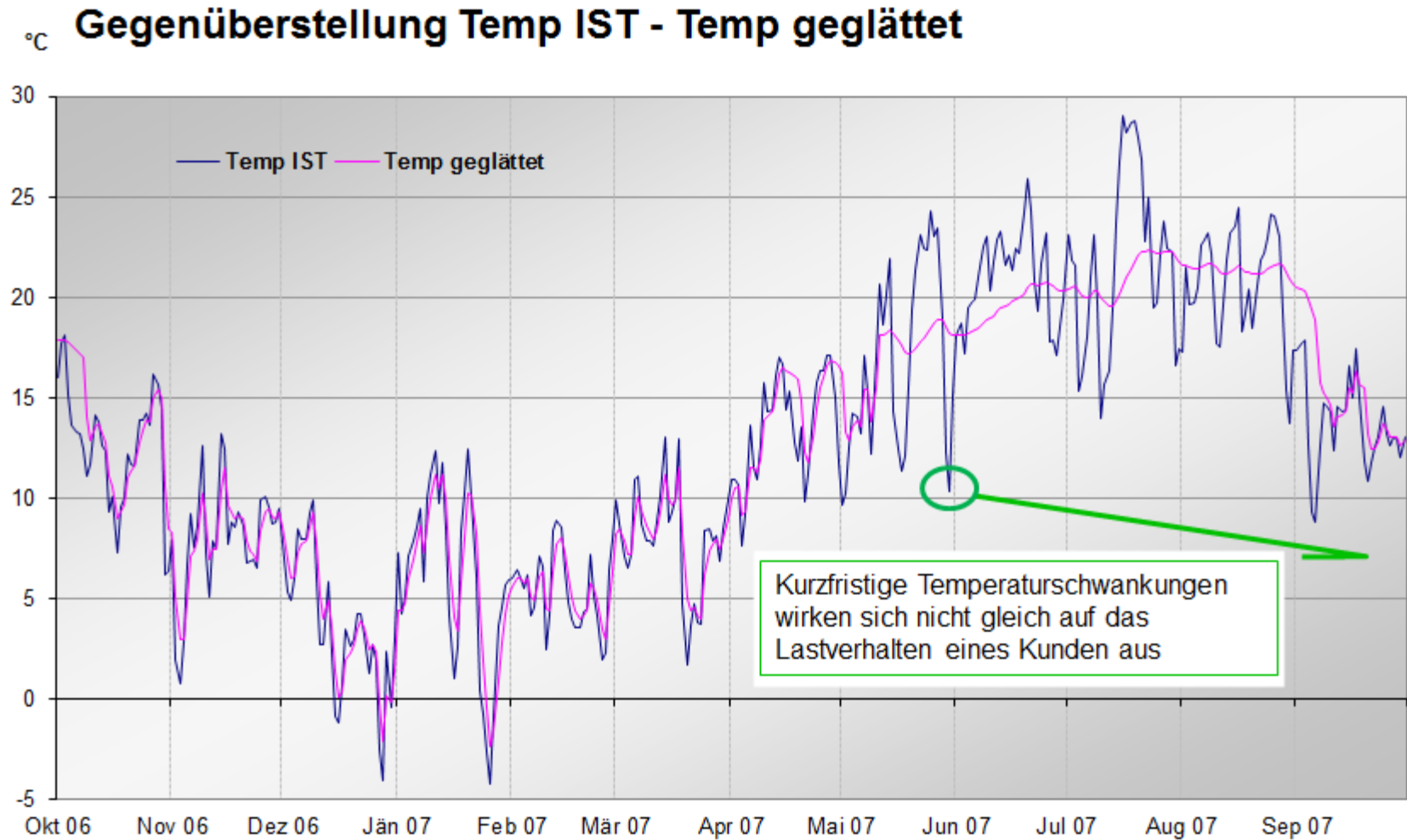


LOAD PROFILES – IMPROVEMENT – DAILY BASIS

Neue Lastprofile bei WEG

Gegenüberstellung Übergabemenge - errechnete H SLP





LOAD PROFILES – IMPROVEMENT – SMOOTHING TEMPERATURE 2/2

	A	B	C	D	E	F	G	H
1	Datum	Tempmittel	Tempmittel gerundet	Glättungs Faktor	Te	HE		
2	01.01.2002	-2,4	-2,4	0,5	-2,40	-2,00		
3	02.01.2002	-0,7	-0,7	0,5	-1,60	-2,00		
4	03.01.2002	-5,9	-5,9	0,5	-3,80	-4,00		
5	04.01.2002	-8,3	-8,3	0,5	-6,10	-6,00		
6	05.01.2002	-2,2	-2,2	0,5	-4,20	-4,00		
7	06.01.2002	0,3	0,3	0,5	-2,00	-2,00		
8	07.01.2002	1,2	1,2	0,5	-0,40	0,00		
9	08.01.2002	1,9	1,9	0,5	0,00	0,00		
10	09.01.2002	0,4	0,4	0,5				
11	10.01.2002	-1,7	-1,7	0,5				
12	11.01.2002	-3	-3,0	0,5	-1,80	-2,00		
13	12.01.2002	-3,2	-3,2	0,5	-2,50	-3,00		
14	13.01.2002	-2,2	-2,2	0,5	-2,40			
15	14.01.2002	-1,3	-1,3	0,5	-1,90			
16	15.01.2002	-2,9	-2,9	0,5	-2,40			
17	16.01.2002	-3,9	-3,9	0,5	-3,20	-3,00		
18	17.01.2002	-3	-3,0	0,5	-3,10	-3,00		
19	18.01.2002	-2,8	-2,8	0,5	-3,00	-3,00		
20	19.01.2002	-0,5	-0,5	0,5	-1,80	-2,00		
21	20.01.2002	5,3	5,3	0,5	1,80	2,00		
22	21.01.2002	7,6	7,6	0,5	4,70	5,00		
23	22.01.2002	5,6	5,6	0,5	5,20	5,00		
24	23.01.2002	4,1	4,1	0,5	4,70	5,00		
25	24.01.2002	2	2,0	0,5	3,40	3,00		
26	25.01.2002	6,3	6,3	0,5	4,90	5,00		
27	26.01.2002	4,5	4,5	0,5	4,70	5,00		
28	27.01.2002	8	8,0	0,5	6,40	6,00		
29	28.01.2002	13,6	13,6	0,5	10,00	10,00		
30	29.01.2002	13,2	13,2	0,5	11,60	12,00		
31	30.01.2002	10,6	10,6	0,5	11,10	11,00		
32	31.01.2002	8,1	8,1	0,5	9,60	10,00		
33	01.02.2002	8,19999	8,2	0,5	8,90	9,00		
34	02.02.2002	7,9	7,9	0,5	8,40	8,00		
35	03.02.2002	8,3	8,3	0,5	8,40	8,00		

NETJKW:
=WENN(MITTELWERT(C3:C9)>=15;0,05;0,5)

NETJKW:
=RUNDEN(C15*D15+(1-D15)*E14;1)

Gesamt HE HM HG Stundenwerte

Bereit