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Shift to Issuing Based methodology

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 2020/03/10

part of eex group

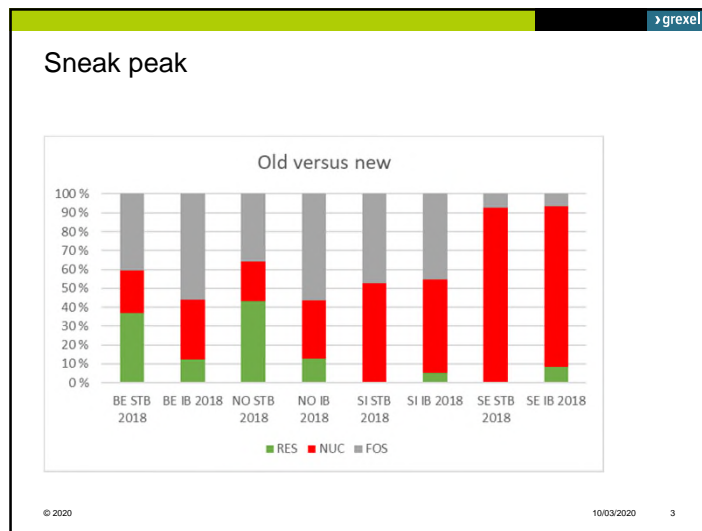
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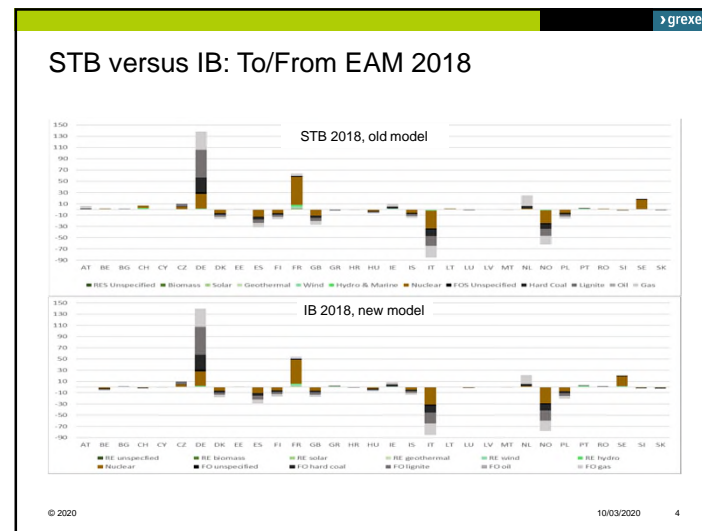
Best available estimate

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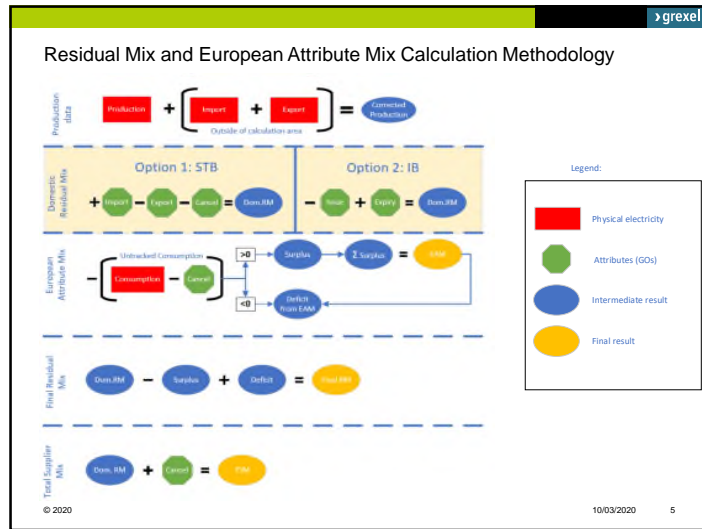
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Why STB is not working anymore?

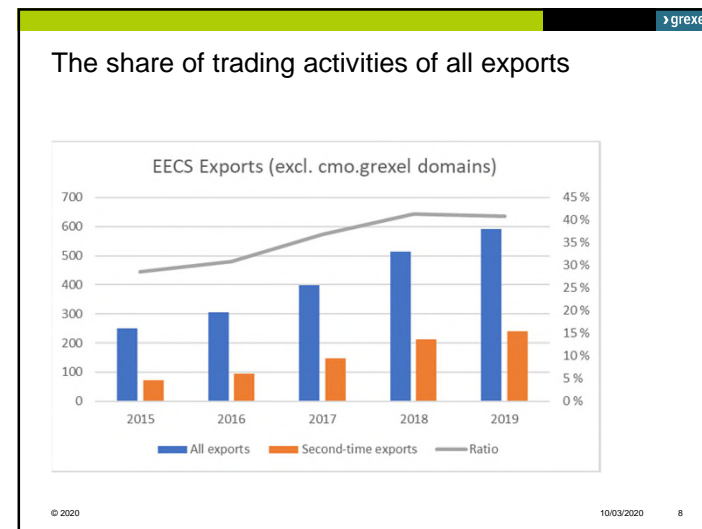
*(Shifted) Transaction Based method

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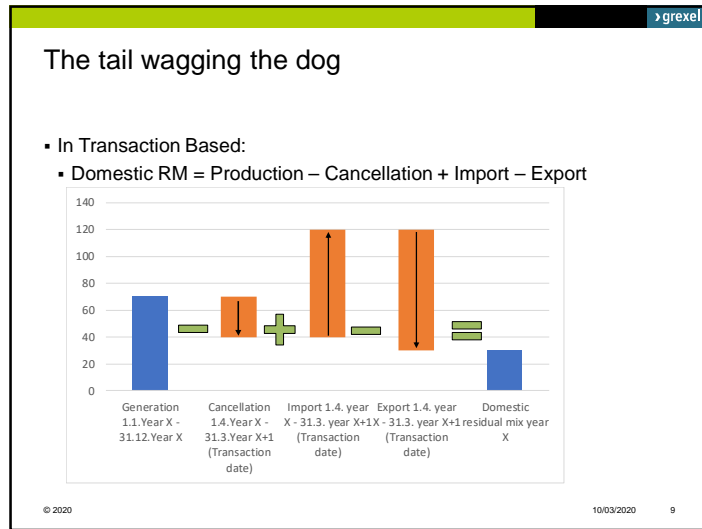
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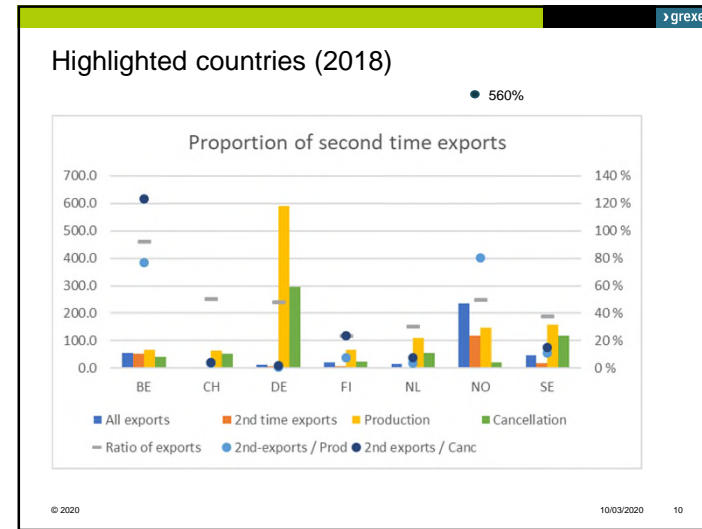
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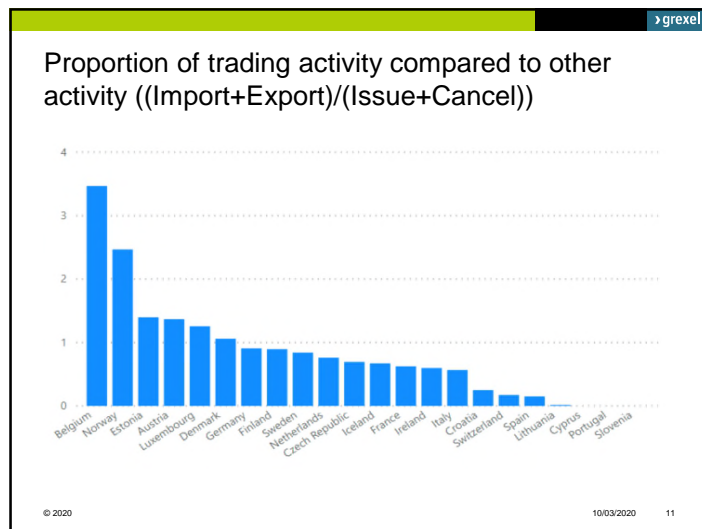
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RE-DISS II (2013): Appendix 2: Future Methodologies for Residual Mix Calculation

RE-DISS proposes to base the calculation of the EAM on the STB method, at least in the near future. As disclosure rules and expiry policies of countries develop and especially become more stable, the IB method could be considered.

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How IB solves the problem?

*Issuing Based method

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Cut the tail off




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Limiting the tail

- In Transaction Based:
 - Domestic RM = Production – Cancellation + Import – Export
- In Issuing Based:
 - Domestic RM = Production – Issuance + Expiry
- International transfers are implicitly considered through EAM

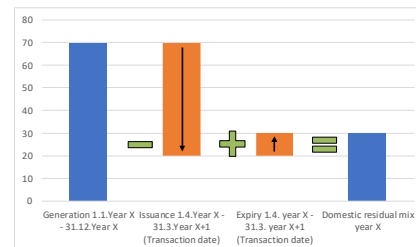
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Limiting the tail

- In IB:
 - Domestic RM = Production – Issuance + Expiry



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Anything else you should know about IB?

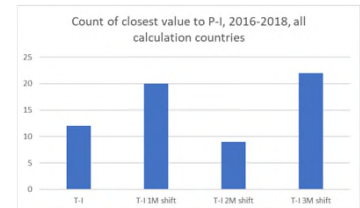
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Highlights from the IB details

- Issuing – Expiry > Cancellation
- Issuing statistics: ~~Production date~~ or Transaction date?
- Shifted or non-shifted?



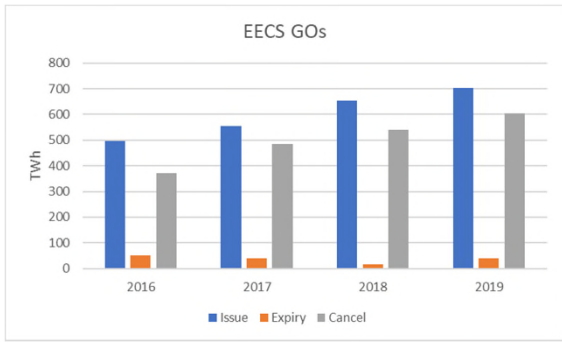
Category	Count
T-I	12
T-I 1M shift	20
T-I 2M shift	9
T-I 3M shift	22

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Cancellations lag behind Issuing



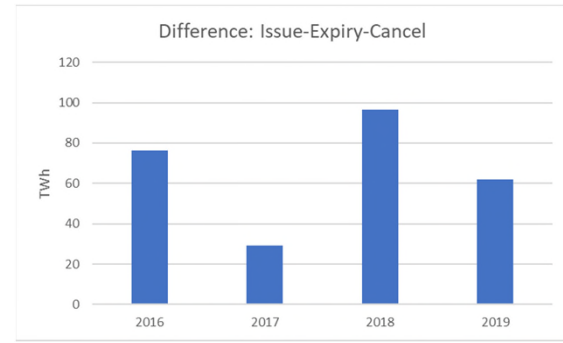
Year	Issue	Expiry	Cancel
2016	500	50	380
2017	550	50	480
2018	650	50	550
2019	700	50	600

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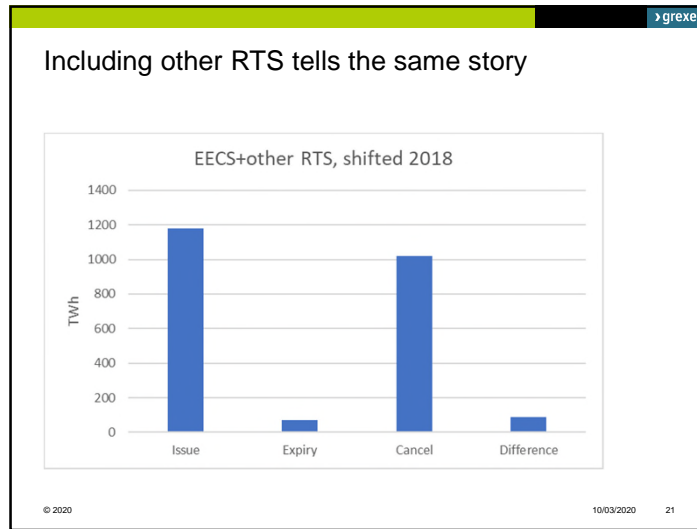
Issuing – Expiry > Cancellation: Big annual variation



Year	Difference
2016	75
2017	30
2018	95
2019	65

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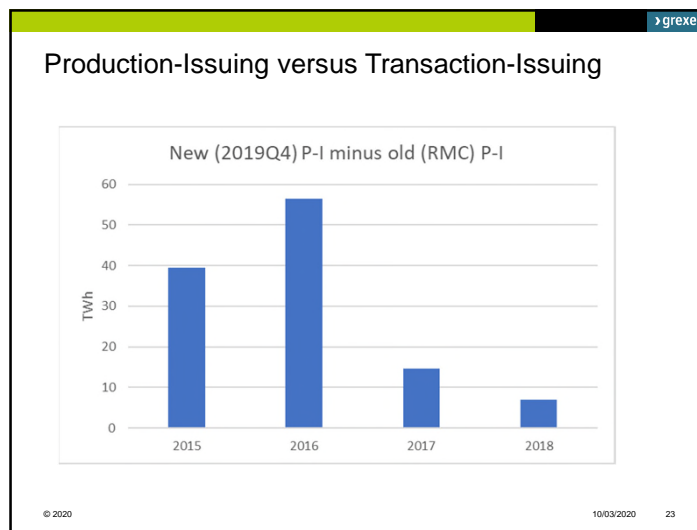
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Issuing – Expiry > Cancellation: It is not a match but it is okay

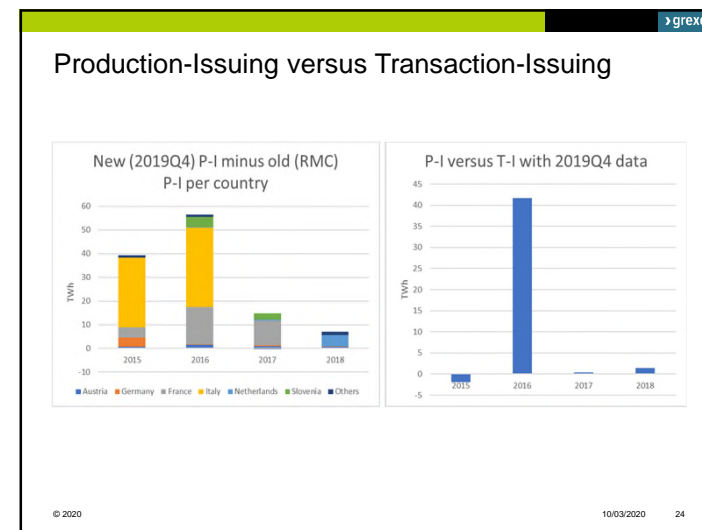
- All components have justified place.
- Issuing removes the tracked attributes from physical Production
- Cancellation removes the tracked attributes from Consumption
- Expiry returns unused tracked attributes back to Production
- Because of different timings the equation cannot be equal
 - GO lifetime
 - Disclosure period

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How methodology has been changed?

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How methodology has changed

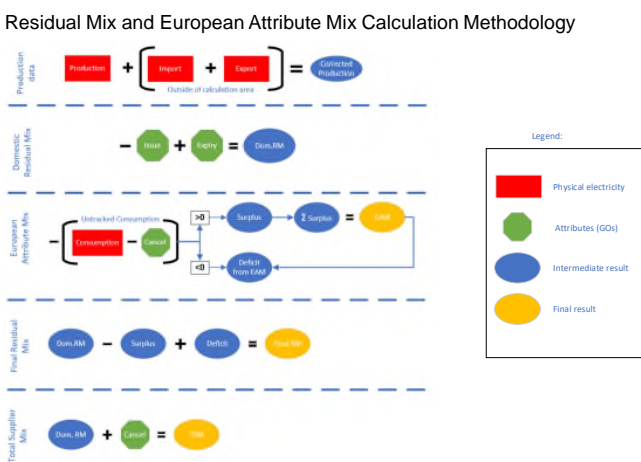
- Domestic residual mix = Production – Issuing + Expiry
 - Environmental indicators
 - No "CO₂ export pool"
- Only CO₂ emissions and radioactive waste

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Residual Mix and European Attribute Mix Calculation Methodology



The flowchart illustrates the calculation methodology in five stages:

- Production Data:** Production + [Import + Export] = Conventional Production. The bracketed area is labeled 'Outside of calculation area'.
- Domestic Residual Mix:** - Issuing + Expiry = Domestic Residual Mix.
- European Attribute Mix:** Unbracketed Consumption - Conventional Production. This leads to either Surplus (if >0) or Deficit from EEA (if <0). Surplus leads to 2x Surplus = Conventional Thermal, and Deficit leads to Deficit from EEA.
- Final Residual Mix:** Domestic Residual Mix - Surplus + Deficit = Final Residual Mix.
- Total Supplier Mix:** Domestic Residual Mix + Conventional Thermal = Total Supplier Mix.

Legend:

- Physical electricity (Red box)
- Attributes (GOs) (Green circle)
- Intermediate result (Blue circle)
- Final result (Yellow circle)

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Production data

- ENTSO-e production data not available this year
- Eurostat data to be used
 - Cons:
 - Pumped hydro
 - Lignite + Hard coal = Coal
 - Conventional thermal
 - Verification from DCBs requested

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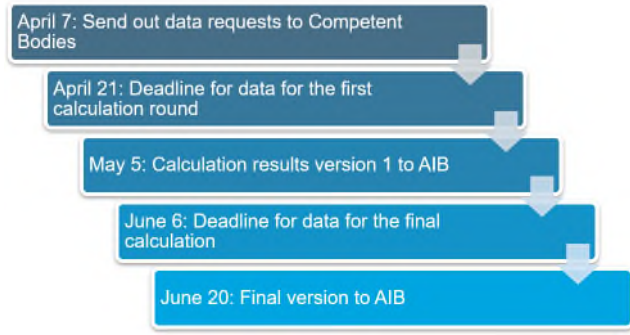
Less data asked from DCBs

- Data input sheet similar to previous years
- Unnecessary rows and columns removed
 - Import and Export related
- ...but, for this year, comments to production data are requested

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Suggestive calculation timeline



- April 7: Send out data requests to Competent Bodies
- April 21: Deadline for data for the first calculation round
- May 5: Calculation results version 1 to AIB
- June 6: Deadline for data for the final calculation
- June 20: Final version to AIB

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Issuing based method is good because

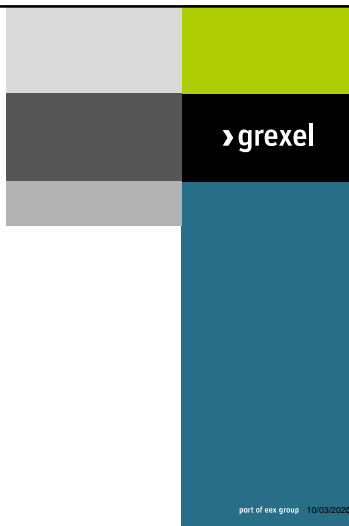


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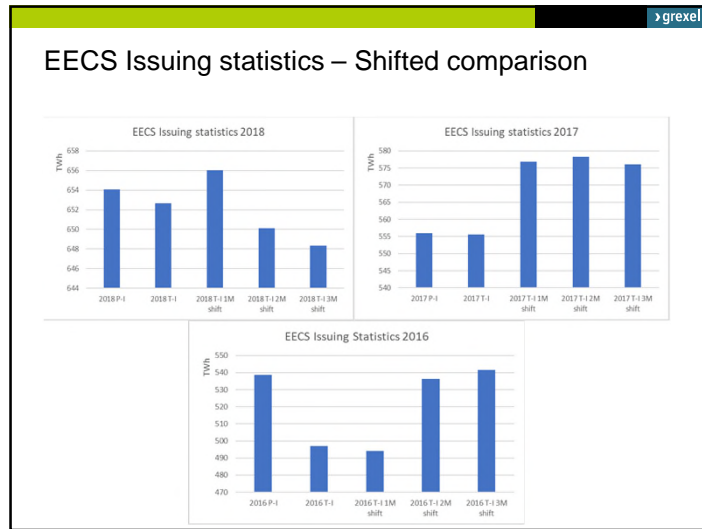
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Additional slides



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Issuing – Expiry > Cancellation:
 What are the Active GOs?

Contry	Energy Source	Energy Source	issued	EECS + NAT GO expiry TWh	Final effective cancellation	Difference	% of issuing
Total	Total	Total	1177.6	69.6	1019.9	88.2	7 %
Total	RE	RU	8.8	0.1	7.6	1.1	12 %
Total	RE	BI	136.7	4.1	123.8	8.7	6 %
Total	RE	SO	73.0	1.4	64.1	7.5	10 %
Total	RE	GE	11.0	0.0	11.1	-0.1	-1 %
Total	RE	WI	326.1	7.5	294.8	23.8	7 %
Total	RE	HY	447.0	7.9	408.5	30.5	7 %
Total	NU	NU	109.5	44.2	57.9	7.4	7 %
Total	FO	FU	11.6	2.3	9.4	-0.2	-1 %
Total	FO	HC	3.6	0.4	2.2	1.0	27 %
Total	FO	LI	0.0	0.0	0.0	0.0	#DIV/0!
Total	FO	OI	0.8	0.0	0.8	-0.1	-12 %
Total	FO	GA	49.7	1.6	39.5	8.6	17 %

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