

INNOPATHS



Evaluating the Polish White Certificate Scheme

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Presentation Outline

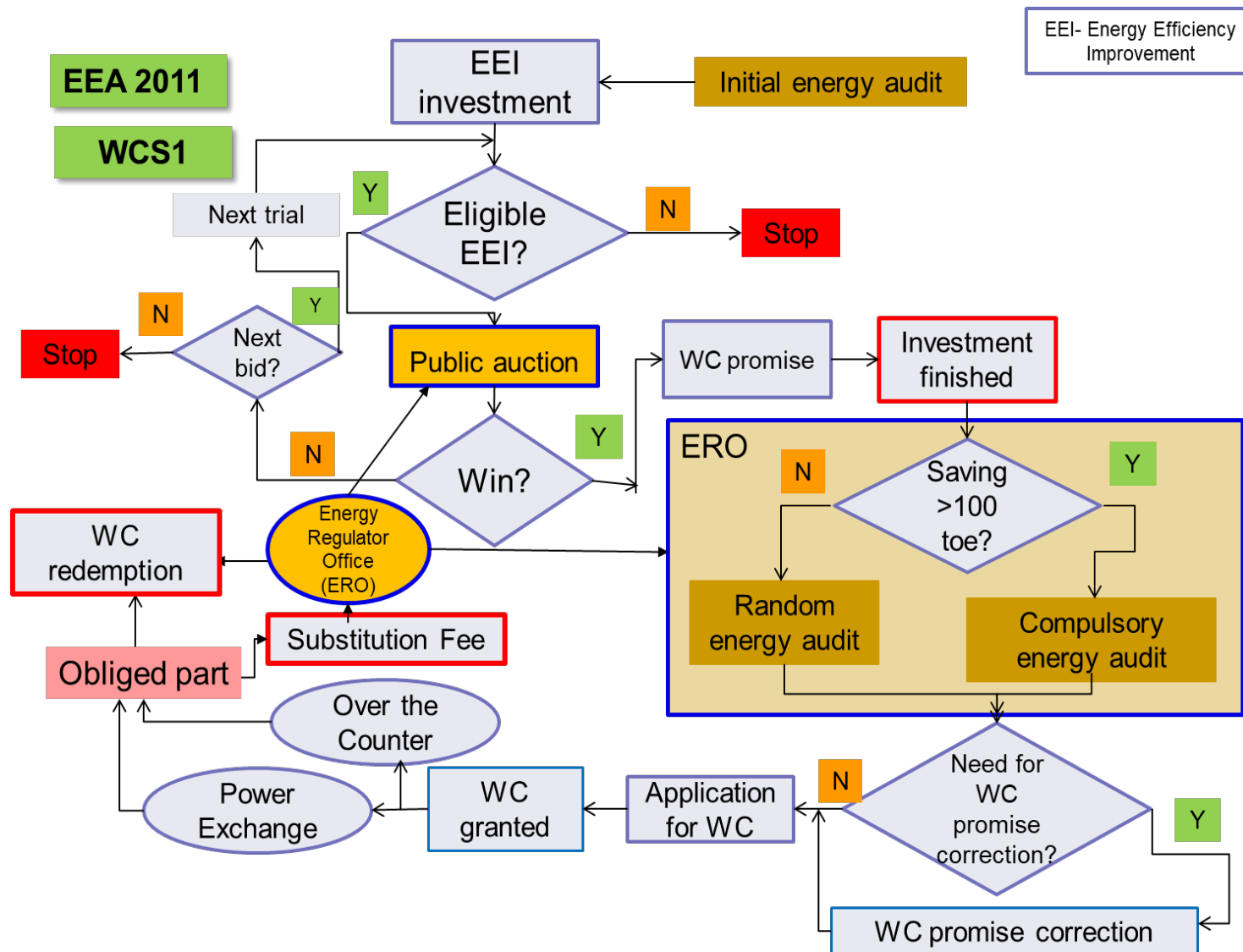
- Energy Efficiency Acts (2011 and 2016)
- White Certificate System (WCS) Overview
- WCS results
- Lesson learnt
- Recommendations



Energy Efficiency Acts

- In Poland the EEO was implemented in the form of the **White Certificates System (WCS)**.
- The system was introduced into the Polish legal system by the Energy Efficiency Act of April 15, 2011 (EEA1)
 - WCS1 was in operation since 1 January 2013. Envisaged to end 31 March 2016;
 - On 29 December 2015 EEA1 extended till 31 March 2017;
- WCS1 was **radically revised** by new EEA2 of May 20, 2016 which introduced WCS2 (since 1 October 2016)

Simplified flowchart of WCS1



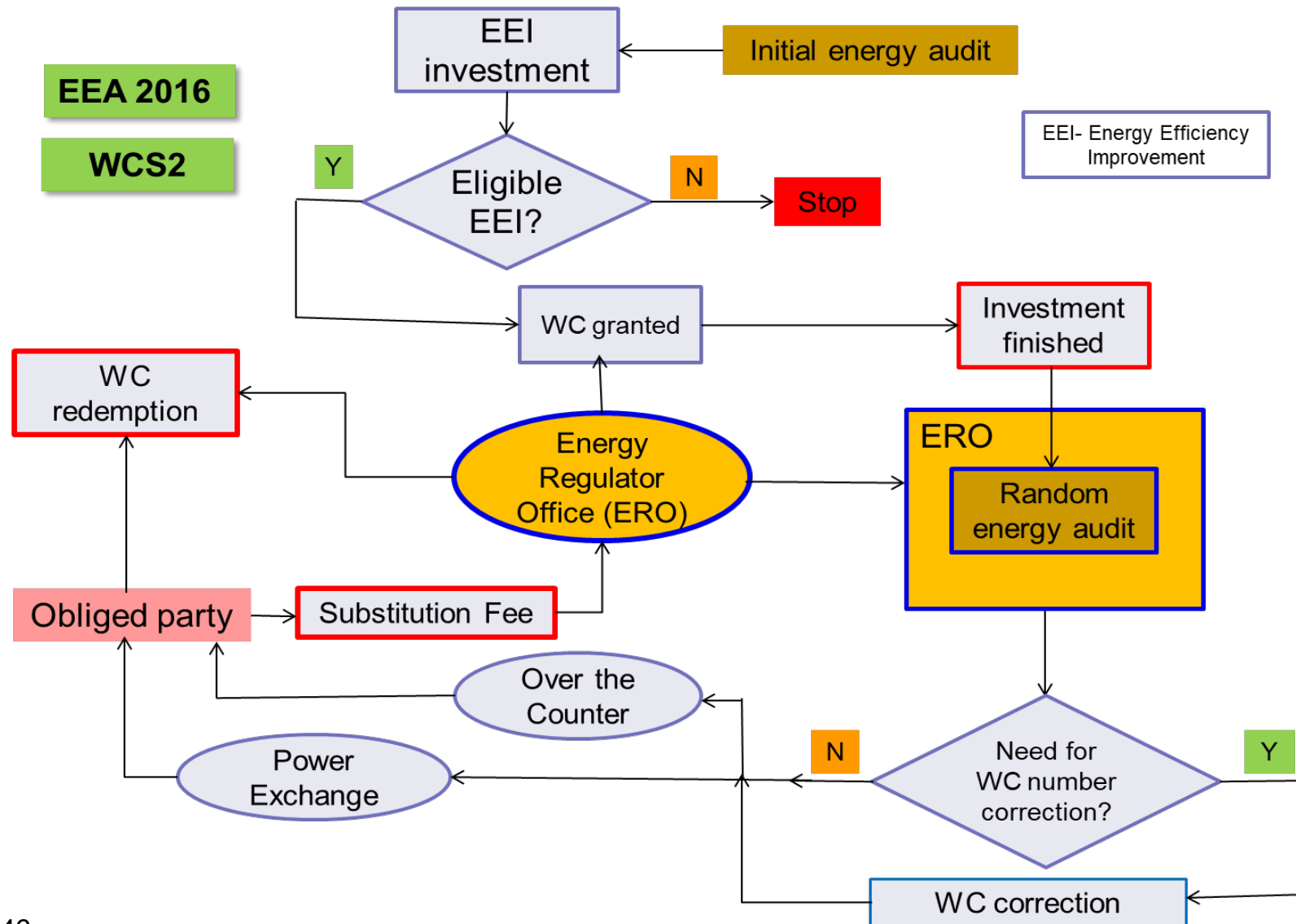


New Energy Efficiency Act (2016)

EEA 2016

- WC granted only for planned energy efficiency investments or finished after the 1st January 2014;
 - Auctioning system removed; continuous and permanent call for energy saving investment introduced;
 - WC will be granted to everyone who implements energy efficiency measure;
- The value of WC is determined in final energy;
- EU ETS installations are covered by the scheme;
- Phase out the possibility to pay the substitution fee instead of carrying out the energy efficiency investments;
 - eligibility of paying substitution fee steadily limited, i.e. 30% in 2016; 20% in 2017; 10% in 2018
 - substitution fee will be increased by 50% in 2017; then by 5% annually
 - possibility to meet the obligation by paying a substitution fee has been limited only to situation when there is not enough WC in the market; the value of substitution fee has been significantly increased;

Simplified flowchart of WCS2





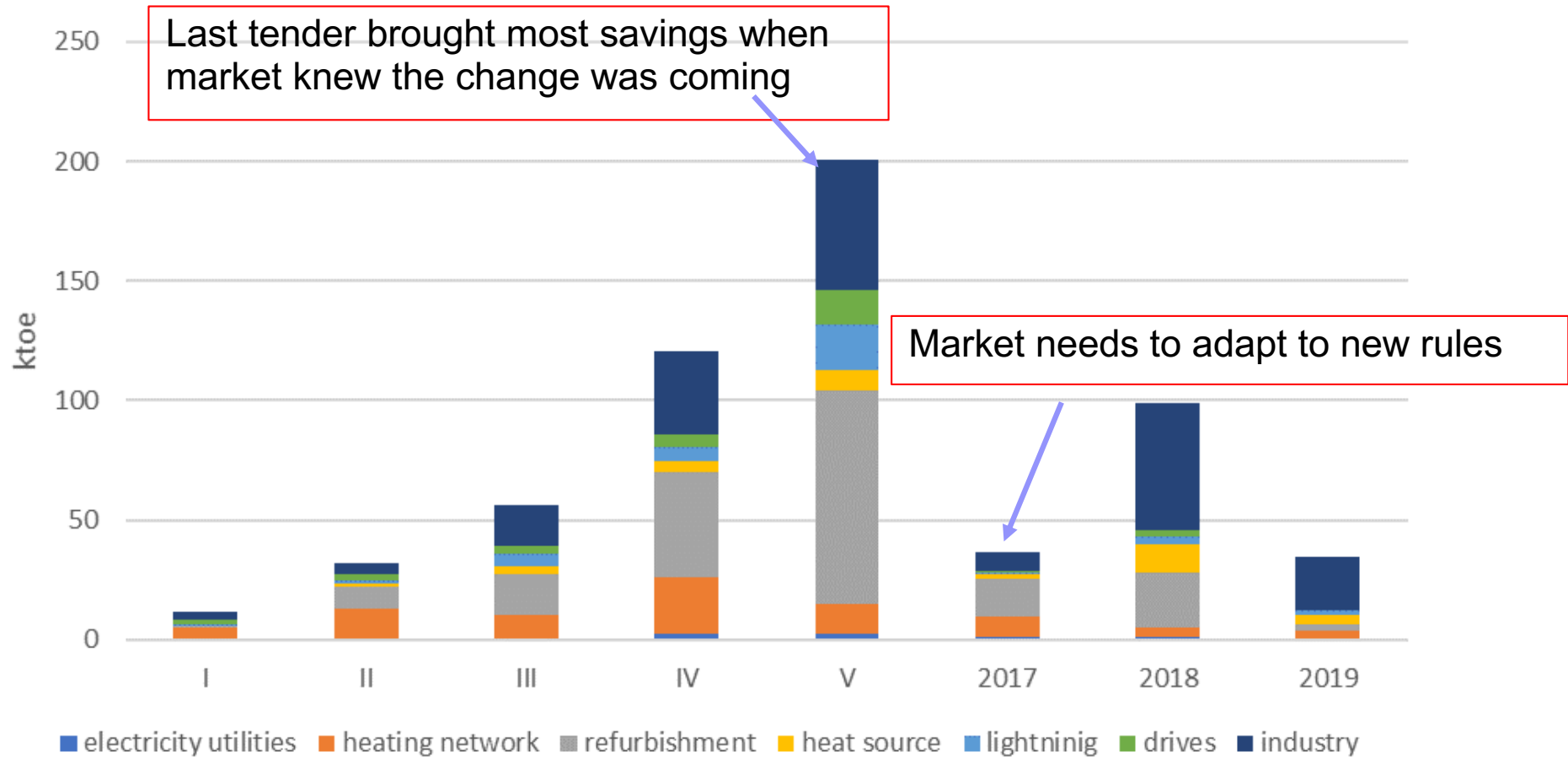
Improvements made

- Reducing the complexity for market actors involved in delivering the programme makes it easier for companies to obtain WCs and for obligated parties to deliver on their targets.
- Disallowing projects already carried out from being funded through the EEO lowers the risk of non-additional savings and free-ridership.
- Switching to the metric of final energy savings significantly reduces the opportunities for using renewable energy technologies for the purpose of delivering energy savings.

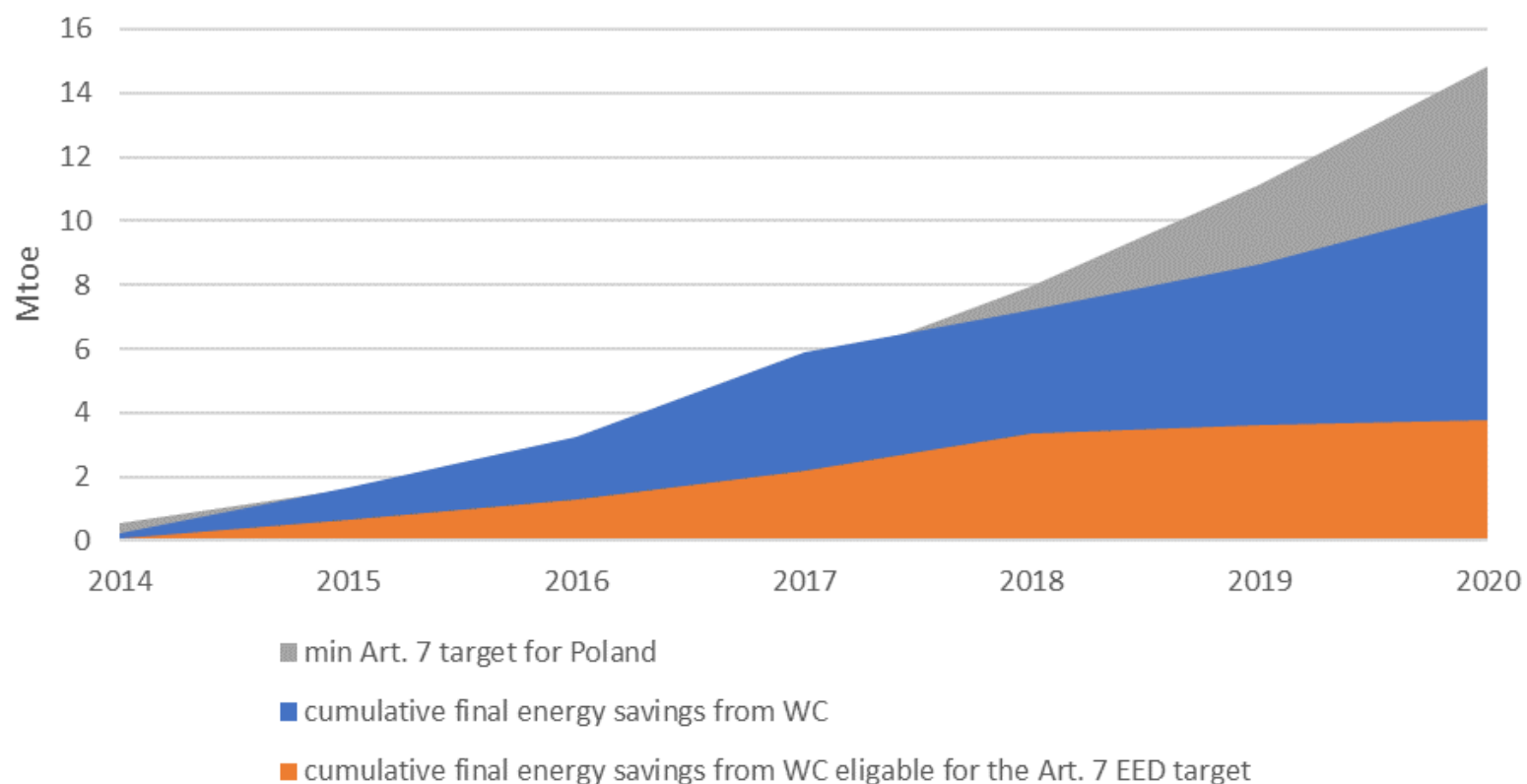
Comparison of the first and second period of the WCS

Issue	First period	Second period
Time period	Start: 1 January 2013. End: envisaged to end 31 March 2016 and followed by transition period until 31 March 2017	Start: 1 October 2016 End: unlimited
Method of allocation of white certificates	white certificates allocated through public auctions only to the winners	white certificates granted to all investors on request
Energy savings target metric	Primary energy	Final energy
Trading	Possible (bilateral and vertical)	Possible (bilateral and vertical)
Obligated parties	Energy suppliers (power, natural gas, heat)	Energy suppliers (power, natural gas, heat)
Minimum project size	10 toe/y saving	10 toe/y saving
Target	Energy savings equivalent to 1.5% annual revenues	Energy savings equivalent to 1.5% of final energy annually traded
Exemptions	Transport, energy intensive industries	Transport, energy intensive industries
Type of investments	white certificates granted for completed projects only	white certificates granted for planned projects only
Energy efficiency audits	Obligatory (ex-ante and ex-post) Carried out independently	Obligatory (ex-ante and ex-post) Carried out independently
Banking and borrowing	None	Banking of savings
Measurement method	Metered and deemed savings	Metered and deemed savings
Check of compliance	M&V loosely described Investments giving annual savings ≤ 100 toe/a - random check ordered by ERO Investments giving annual savings > 100 toe/a - obligatory energy audit	M&V loosely described Random check by ERO
Buy-out mechanism	Unlimited possibility to fulfilling obligation by paying buy-out price	Limited and steadily diminishing option to use buy-out mechanism
Buy-out price	Fixed buy-out price	Buy-out price increases by 5% per year
Penalty for non-compliance	Yes	Yes

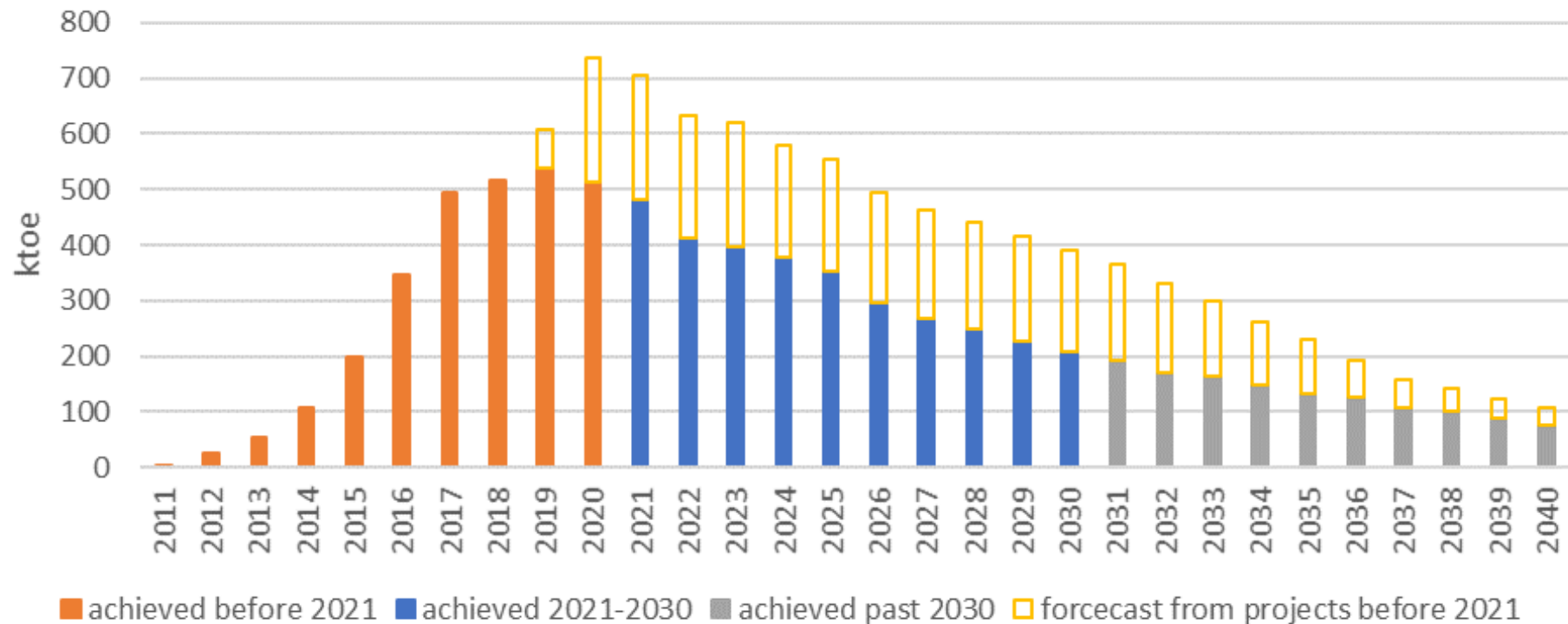
Final energy savings



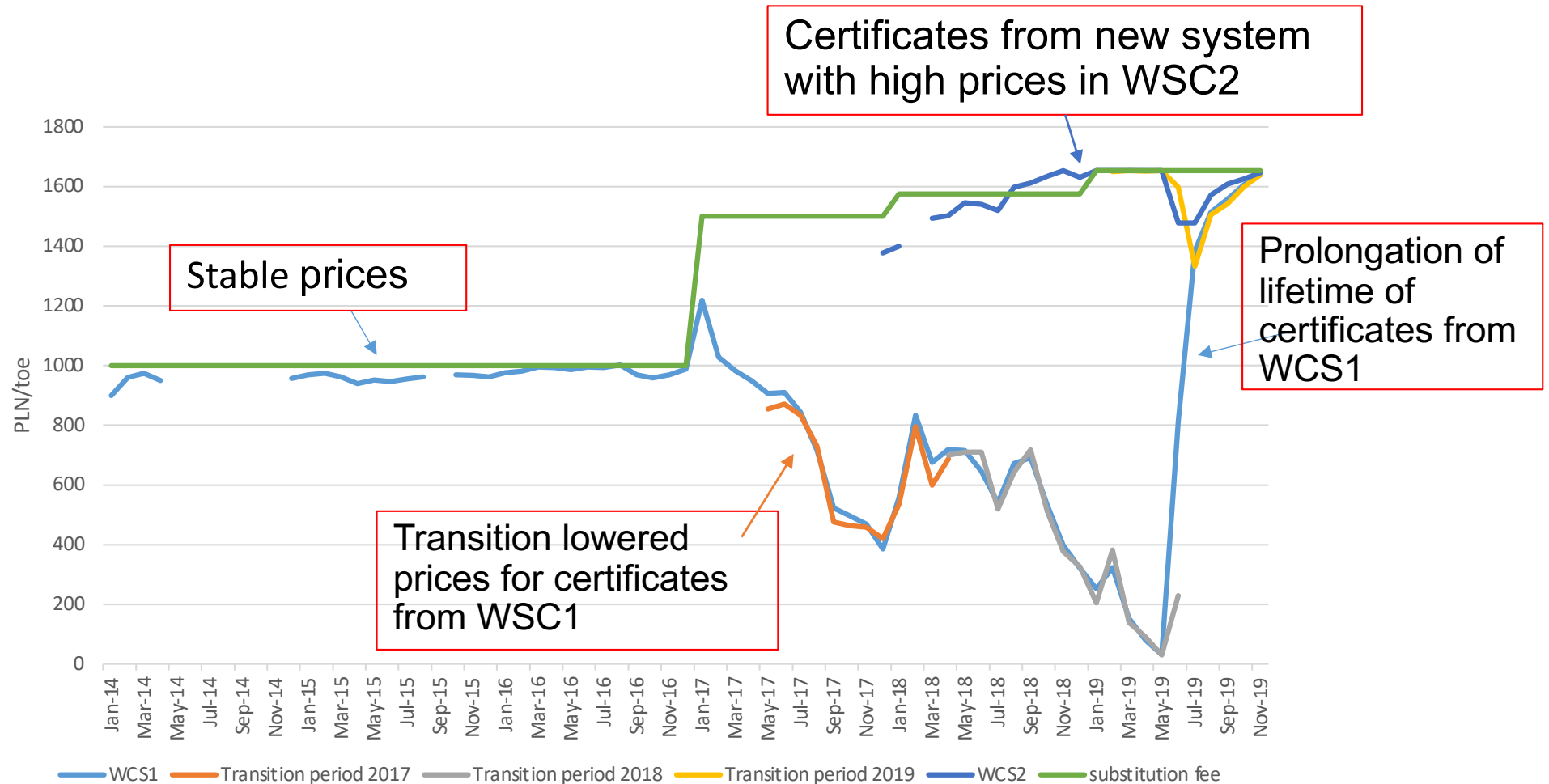
Forecast of cumulative final energy savings from WCS1 and WCS2 with projection until 2020



Cumulative final energy savings achieved each year



Average price of certificates from WCS1, WCS2 and in transition periods in PLN/toe





Areas of concern

- The monitoring and verification regime appears to rely on self-declared energy savings by companies obtaining WCs
- There is no official specification of lifetimes
- There is a lack of independent evidence-based evaluations of the EEO
- Requirements to prove additionality need to be established



Recommendations

- ensure that the obligated parties meet their targets through enforcement and the use of penalties as appropriate
- introduce much stricter requirements for ex-post monitoring and verification moving away from self-reported savings and using realistic assumptions for lifetimes
- introduce additional policies for delivering new savings.
- increase the transparency of the EEO, making data

Plans for the future

- New legislation in process
- Continuation of the White Certificate scheme with possible changes
- Supporting the fulfillment of Art.7 target with complementary alternative measures is considered

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Thank you for your attention!

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