



# MOMENTUM SAVINGS

Monthly Call  
July 27 2016

# AGENDA



# LIGHTING STUDIES MODEL REVIEW



Will be reviewed by BPA RTF Market Analysis  
Subcommittee

Subcommittee members have full access  
to Analytica model

Comments will be reviewed and  
integrated where appropriate



July 29

Subcommittee meeting:

- Model demo
- Guidance on reviewing model

August 8

Subcommittee receives:

- Model
- Methodology memo
- Comment tracker

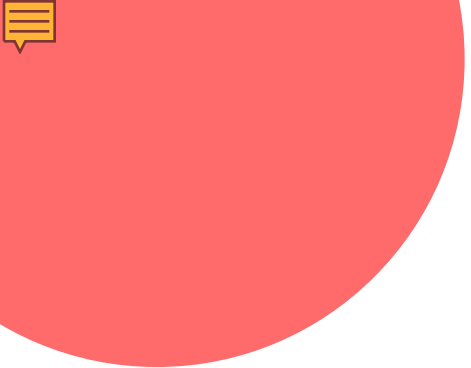
September 9

Subcommittee provides feedback to BPA/research team

October 14

Final model is complete

# RESIDENTIAL MODEL REVIEW



September 7

Subcommittee meeting:

- Model demo
- Guidance on reviewing model

September 9

Subcommittee receives:

- Model
- Methodology memo
- Comment tracker

October 14

Subcommittee provides feedback to BPA/research team

November 4

Final model is complete

# NON-RESIDENTIAL MODEL REVIEW



UPDATE

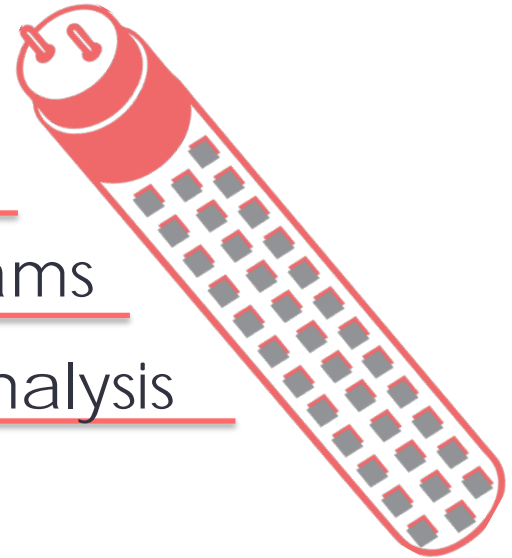
BASELINE

LIBRARY

Complexity of LPD baseline

Misalignment with programs

Risk of errors in analysis





WHAT'S NEXT?

Weekly Announcements: we may  
postpone August 18<sup>th</sup> meeting







7<sup>th</sup> PLAN  
DRAFT  
FORECASTS



# UNCERTAINTIES

New Standards  
Market Uptake  
Data Availability

# OVER THE 6<sup>TH</sup> PLAN

1. Quantified 174 aMW; likely to rise as new lighting projects complete
2. Drivers for large savings:
  1. NEEA (TVs)
  2. Appliance Standards
  3. Non-residential lighting

# OVER THE 7<sup>TH</sup> PLAN

1. Draft forecast of 194 aMW
2. Drivers for large savings:
  1. Non-residential lighting
  2. Residential lighting
  3. Appliance Standards

# METHODOLOGY

1. Review of Technical Potential, Program Savings and Momentum Savings Model and data
2. Review of upcoming standards
3. Review of load forecast
4. Professional judgment applied based on 6<sup>th</sup> Plan analysis

# SAVINGS CATEGORIES

1. **NEEA:** the difference between Council baseline and NEEA baseline
2. **Appliance Standards:** Standards not included in market momentum and NEEA
3. **Market Momentum:** Markets BPA tracks (Lighting & HVAC)

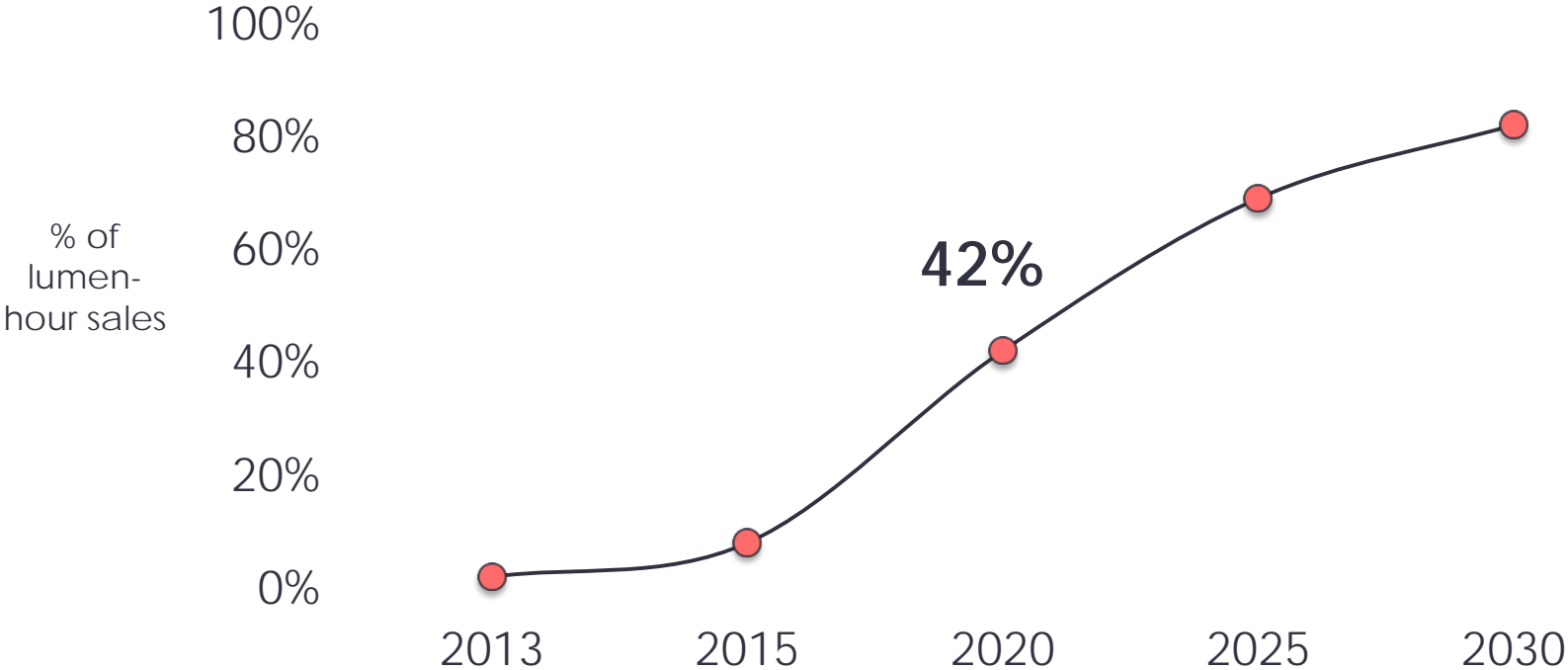
# SAVINGS BY CATEGORY, DRAFT

Year	Market Momentum	Standards Momentum	NEEA Momentum	Total Savings (aMW)
2016	7	0	3	10
2017	11	1	4	16
2018	19	2	6	27
2019	24	3	7	34
2020	27	10	5	42
2021	27	24	14	64
<b>Total</b>	<b>114</b>	<b>40</b>	<b>40</b>	<b>194</b>

Note: High Confidence in the total standards and market total over 6 years but Low Confidence as to what particular year they occur.

# FUTURE LED MARKET SHARE

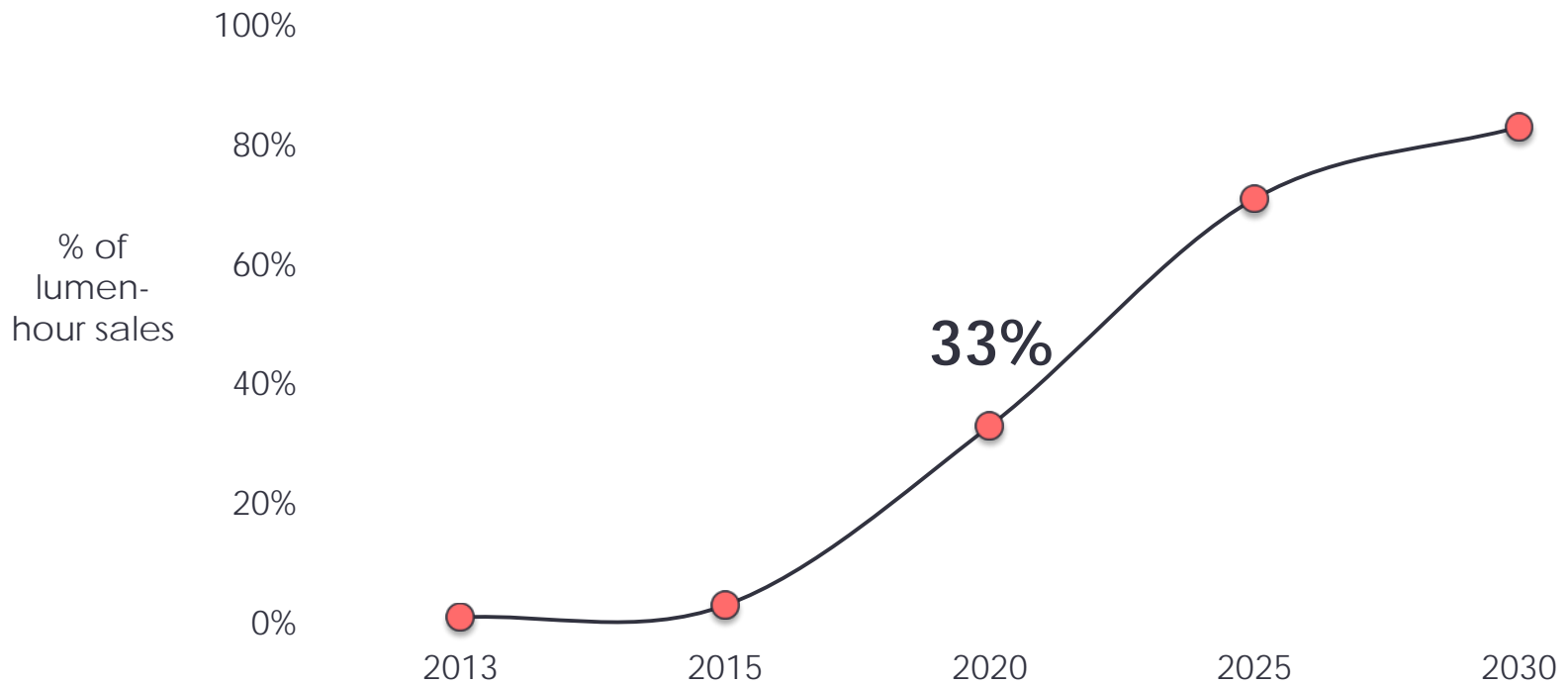
## COMMERCIAL SPACE





# FUTURE LED MARKET SHARE

## RESIDENTIAL SPACE



# SAVINGS BY CATEGORY, DRAFT

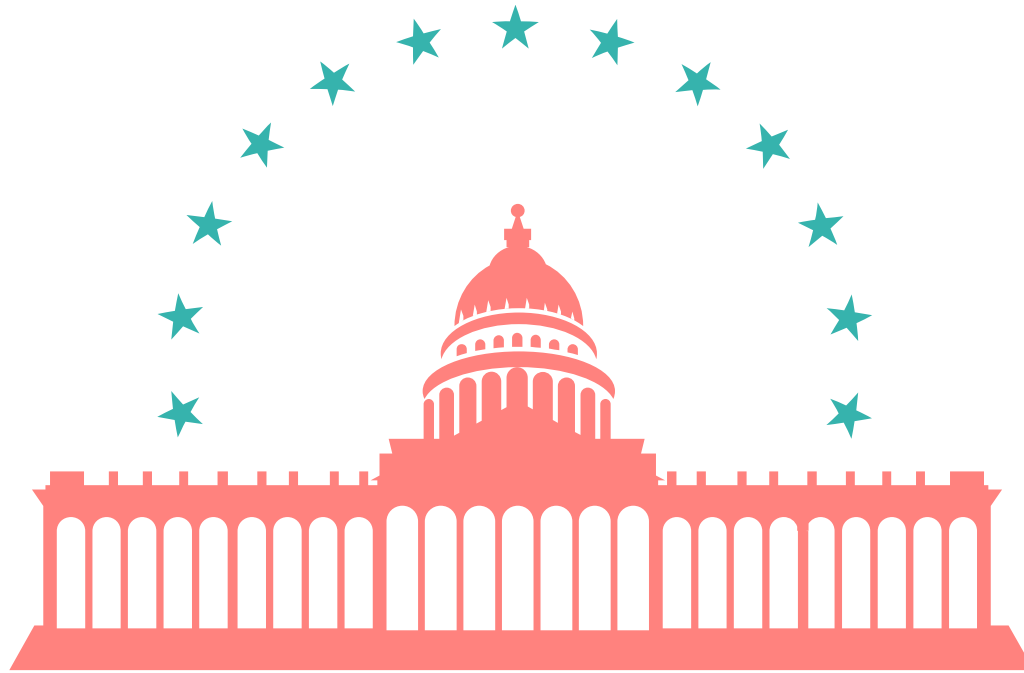
	2016	2017	2018	2019	2020	2021
Air Source Heat Pumps	1	1	1	1	1	1
Res Lighting	-1	1	3	10	10	10
Non-res Lighting	-1	2	3	20	25	26
Total Market	-1	4	7	31	36	37



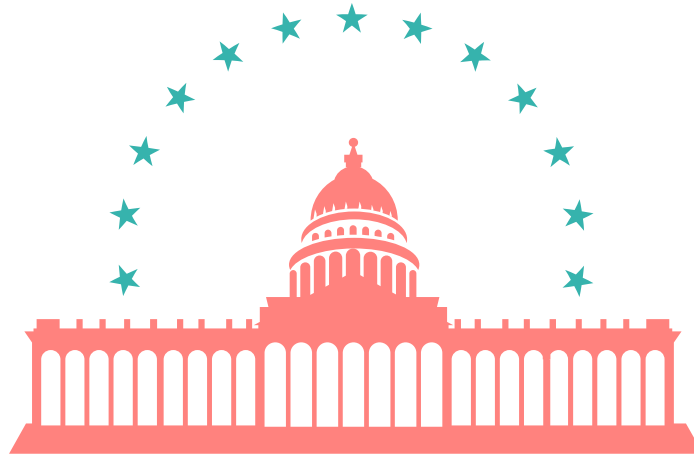
First Year is small or negative then grows

# NEW MODEL

1. Updated projections of market movement and savings
2. Could impact projections and inform the year in which savings occur



Appliance standards remain significant:  
Assuming 7<sup>th</sup> Plan Savings are similar to 6<sup>th</sup> Plan



Uncertainties:

New product coverage

Election results

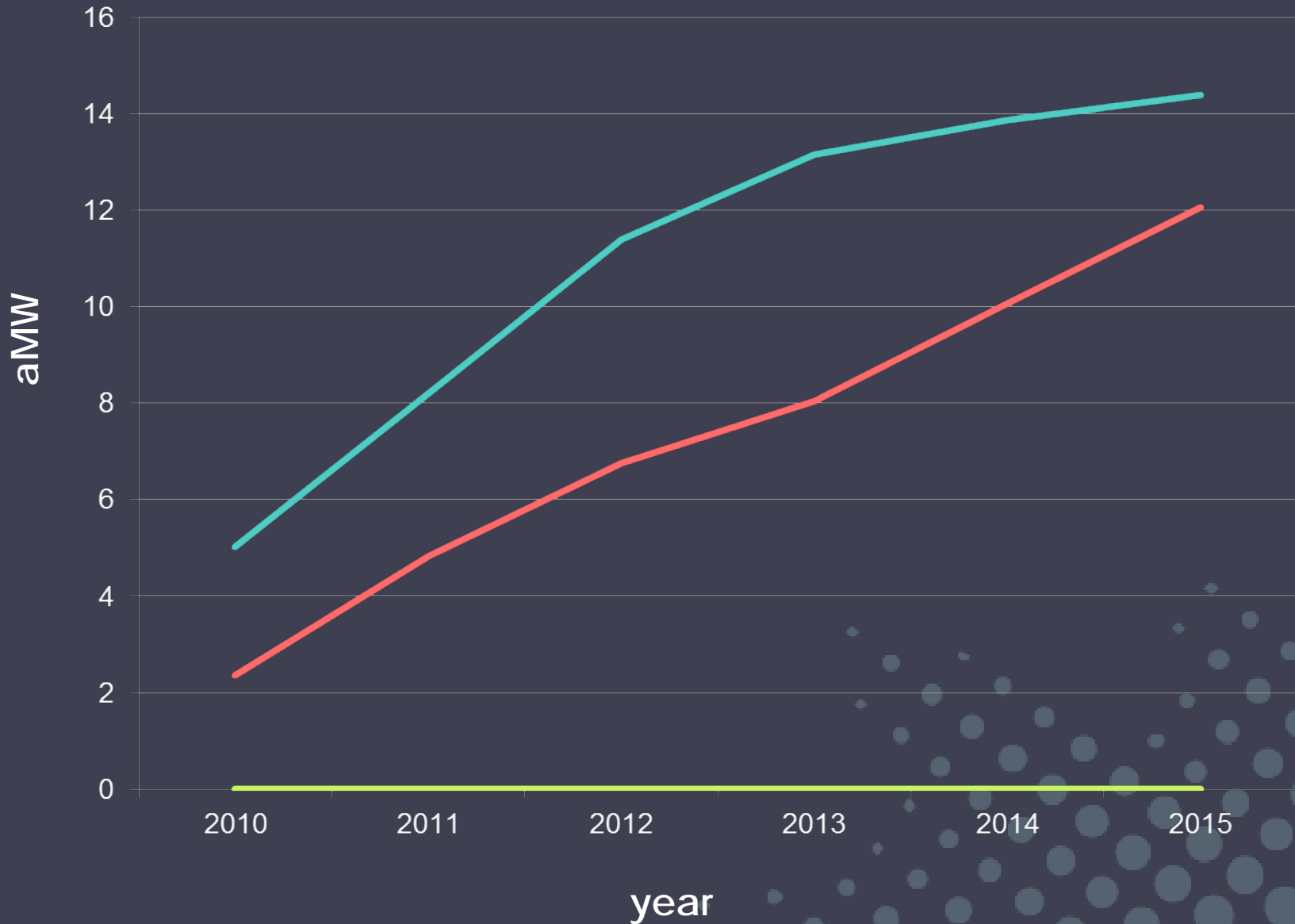
Our Plan:

Begin modeling standards early in Plan period in partnership with NEEA; adjust forecasts if needed in future

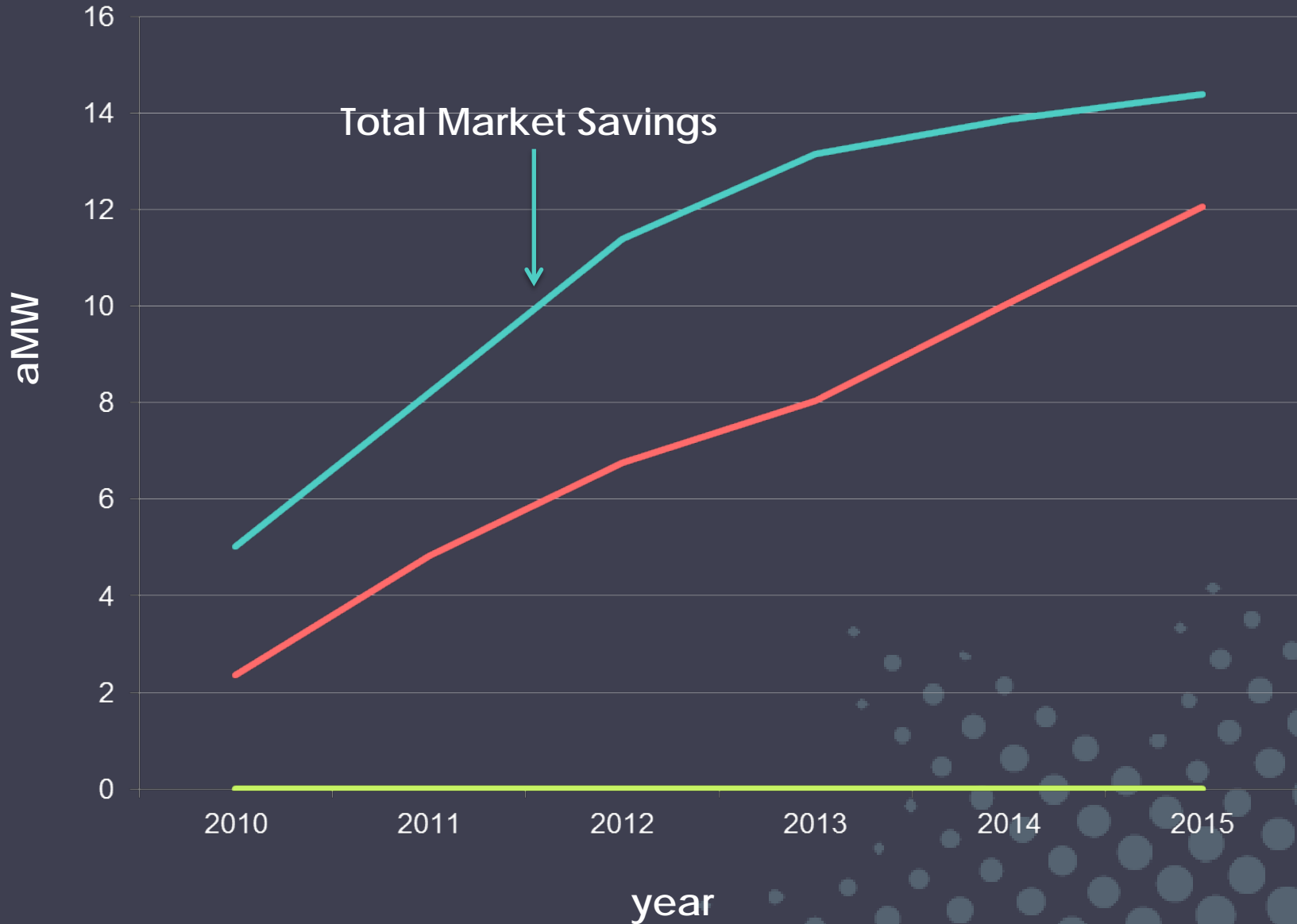


**NEEA**

# Energy Savings from Televisions, 2010-2015

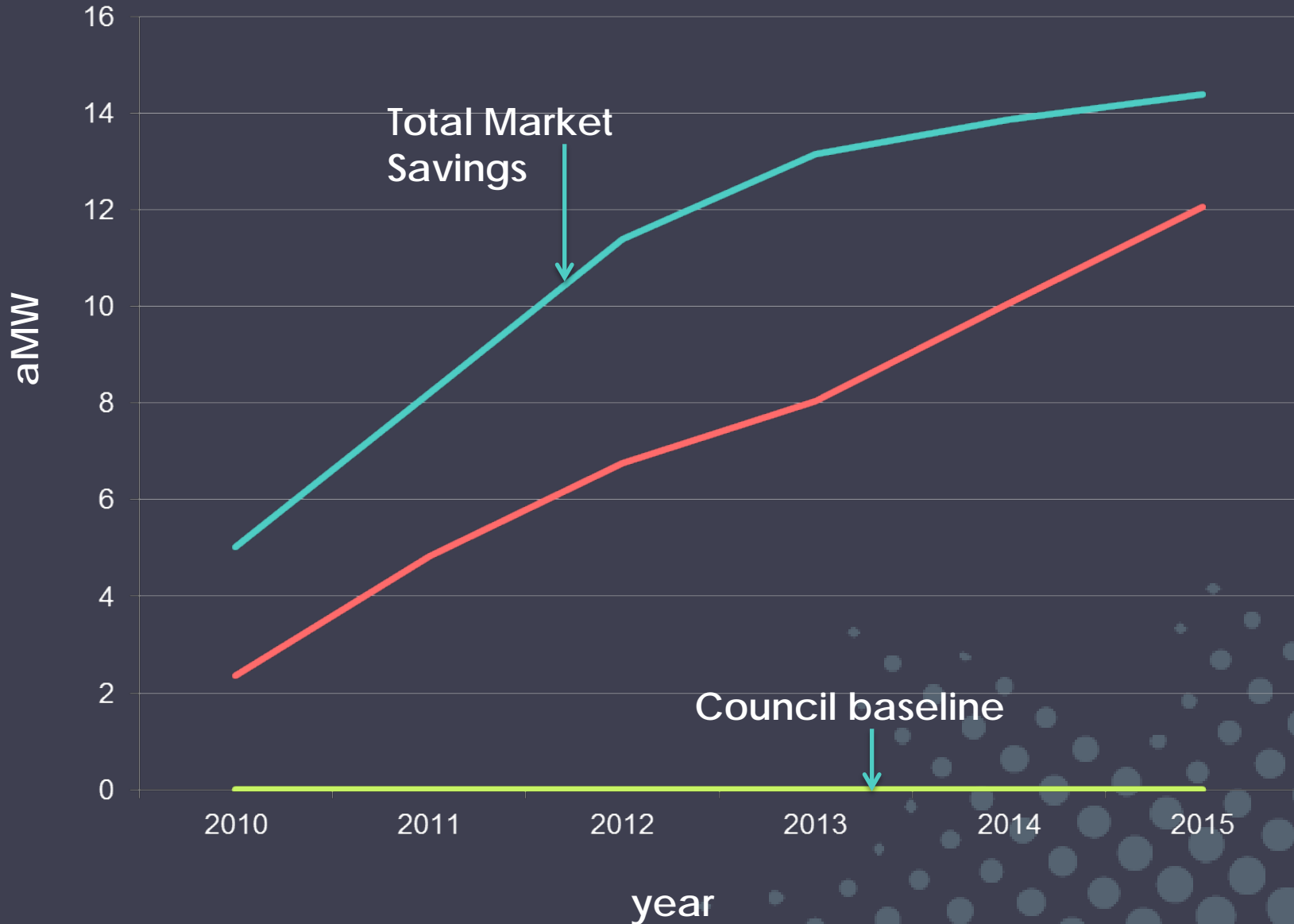


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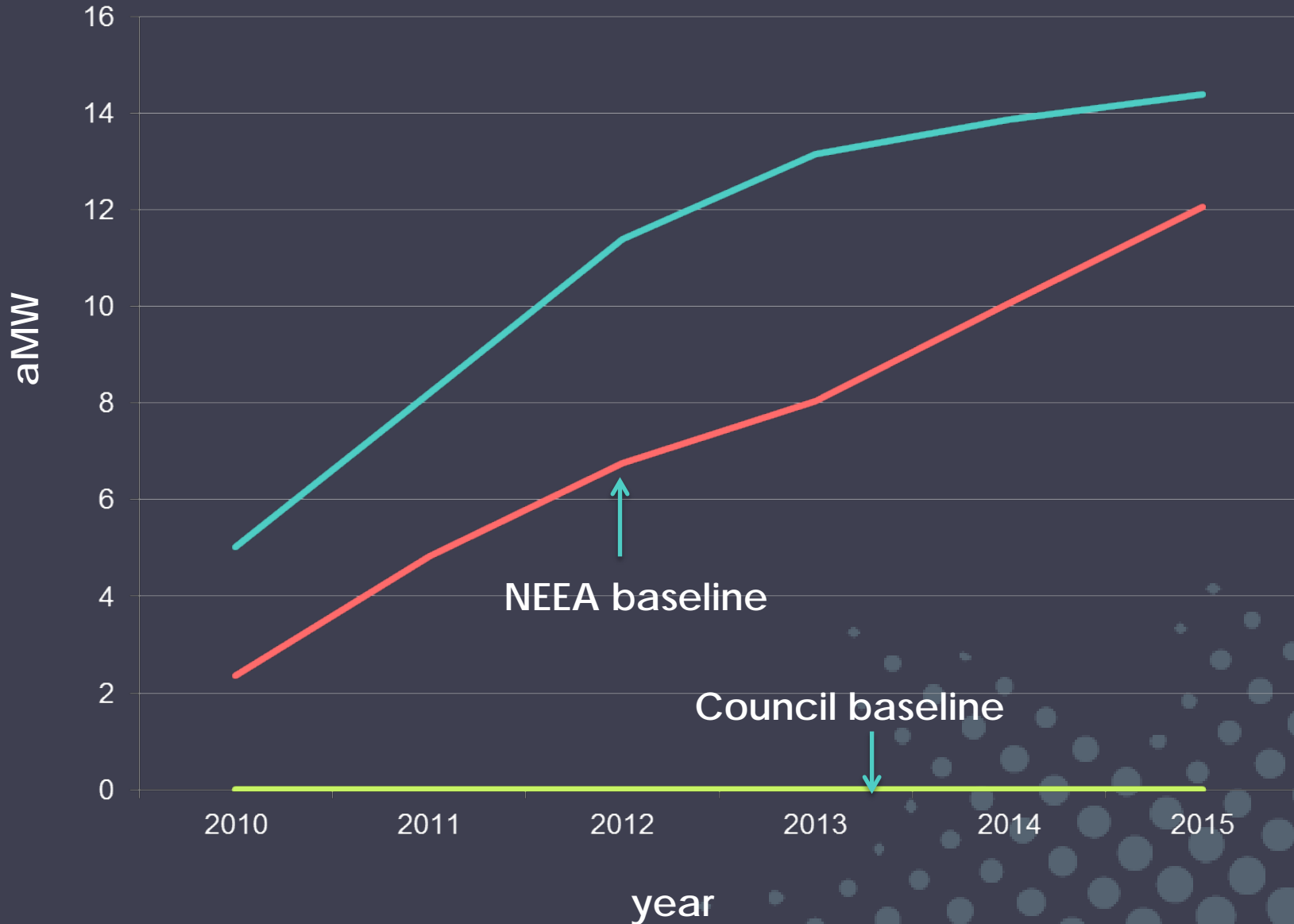




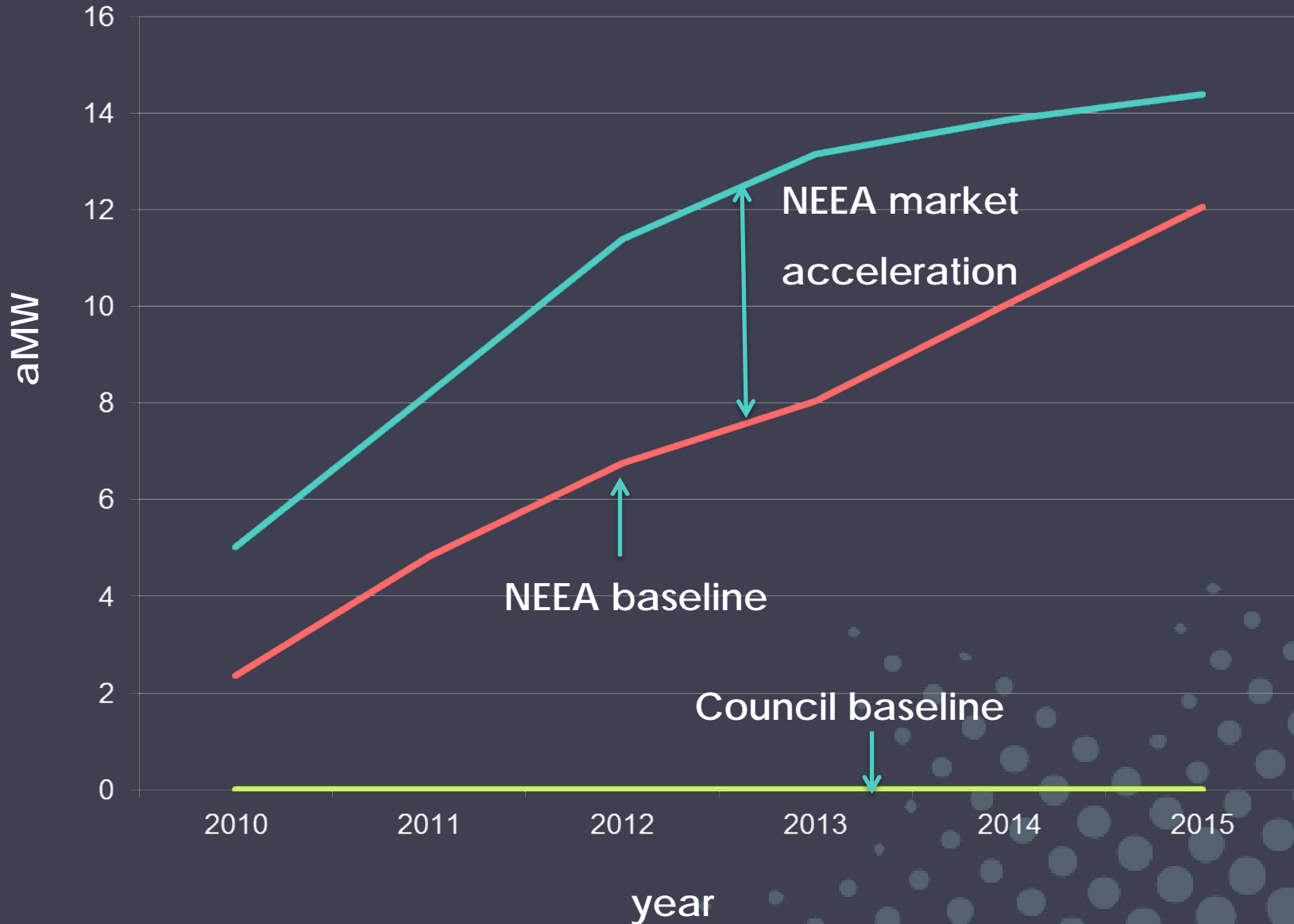
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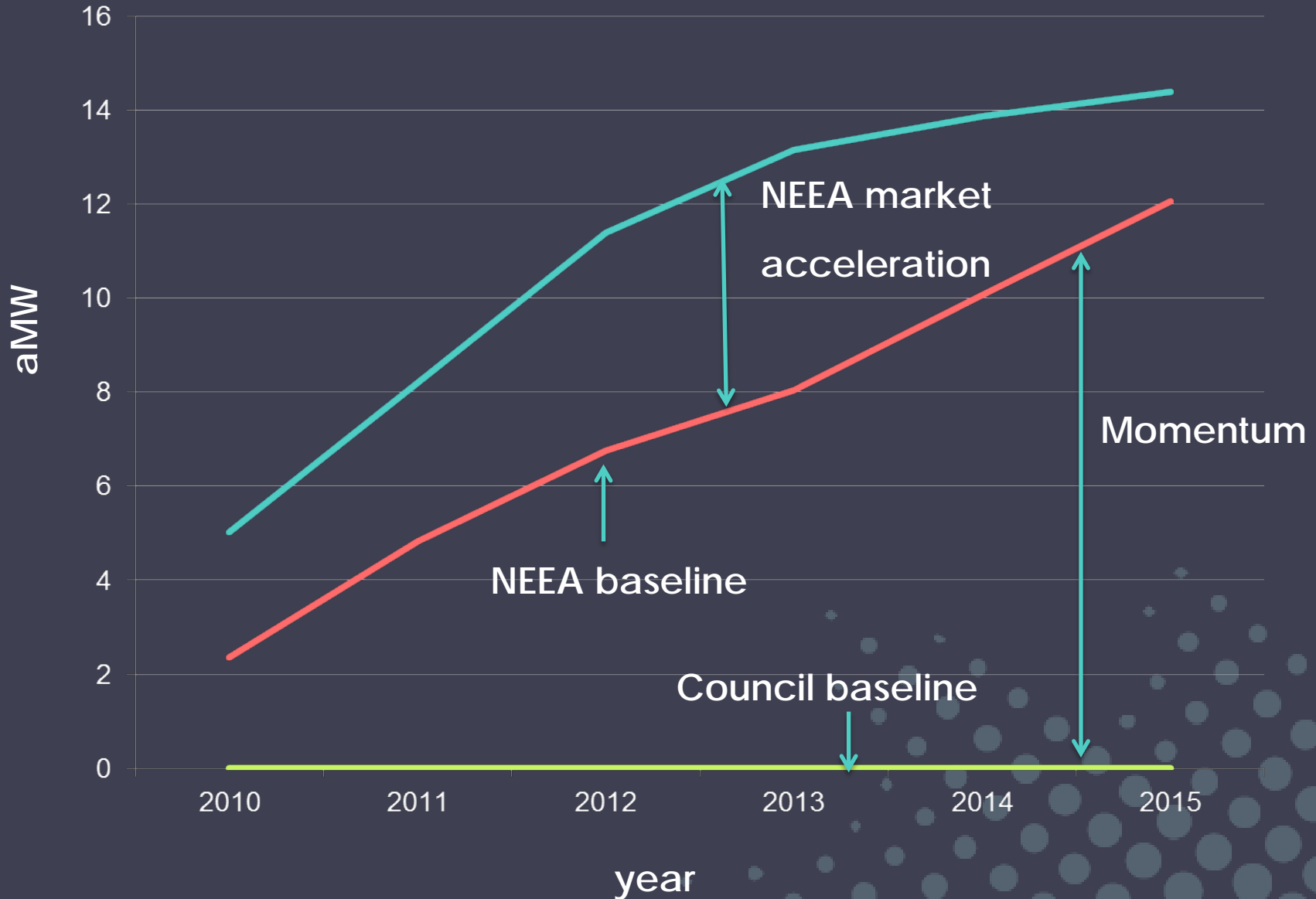
# Energy Savings from Televisions, 2010-2015



# Energy Savings from Televisions, 2010-2015



# Energy Savings from Televisions, 2010-2015



# WATCH FOR

1. Lighting Model estimates and model review: results will be interesting
2. Baseline library: more to come by first week of August
3. Non-res lighting: TLED presentation and white paper
4. Avoiding double-counting presentation
5. Lighting project: booklet under development; interview results memo under review
6. Conduit-ed series this Fall





# CONTACT

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