OPALCO 2016 Budget Overview

November 2015 Board Meeting

How did we do in 2015 Q3?

Let's start with Budget to Actual…

2015 Q3 Results: Statement of Operations

	A. Audited Year End 12/31/2011	B. Audited Year End 12/31/2012	C. Audited Year End 12/31/2013	D. Audited Year End 12/31/2014	E. Budget Year End 12/31/2015	F. Budget Period End 9/30/2015	G. **Actual Period End 9/30/2015**	H. Budget Variance (F - E)	I. Actual Period End 9/30/2014
OPERATING REVENUES									
Residential	$ 15,759,594	$ 14,861,010	$ 15,598,797	$ 15,913,325	$ 17,714,009	$ 12,732,874	**$ 12,349,844**	(383,029)	$ 11,420,762
Commercial	5,092,396	5,260,451	5,467,588	5,694,901	6,523,281	4,764,941	**4,659,720**	(105,220)	4,187,913
Other	317,208	296,764	364,892	420,798	459,851	340,676	**354,412**	13,736	303,110
Total operating revenue	21,169,199	20,418,225	21,431,278	22,029,025	24,697,141	17,838,491	**17,363,977**	(474,514)	15,911,784
OPERATING EXPENSES									
Cost of power	6,680,856	7,240,696	7,514,128	8,037,428	8,452,880	5,874,611	**5,487,741**	(386,870)	5,708,766
Transmission	51,964	126,986	70,117	92,874	95,459	83,801	**26,954**	(56,847)	80,227
Distribution - operations	2,348,360	2,805,586	2,968,003	2,961,250	3,462,037	2,659,894	**2,613,609**	(46,285)	2,315,960
Distribution - maintenance	1,417,386	1,518,742	1,669,524	1,778,516	1,862,557	1,418,754	**1,254,299**	(164,456)	1,381,273
Consumer accounts	835,247	809,149	853,211	898,198	1,000,006	777,083	**690,216**	(86,867)	678,907
General and administration									
Administration G&A	2,385,483	2,799,833	2,718,889	2,822,439	3,060,993	2,309,647	**2,110,939**	(198,708)	2,179,626
Energy services G&A	219,929	276,269	462,966	373,323	743,548	819,885	**563,513**	(256,372)	236,089
Total general and administration	2,605,412	3,076,102	3,181,855	3,195,763	3,804,540	3,129,532	**2,674,452**	(455,080)	2,415,714
Depreciation and amortization	2,507,468	2,652,194	2,719,560	2,975,650	3,166,399	2,321,110	**2,450,525**	129,416	2,191,281
Taxes	869,518	832,220	930,482	961,815	1,038,446	762,944	**756,514**	(6,430)	706,797
Total operating expenses	17,316,211	19,061,677	19,906,881	20,901,493	22,882,324	17,027,728	**15,954,308**	(1,073,420)	15,478,925
Operating margins before fixed charges	3,852,988	1,356,548	1,524,397	1,127,532	1,814,817	810,763	**1,409,669**	598,906	432,859
FIXED CHARGES									
Interest on long-term debt	733,675	759,686	786,193	908,934	1,003,025	725,518	**754,249**	28,731	675,404
Other Interest	227,223	-	-	-	-	-	**-**	-	-
Total fixed charges	960,898	759,686	786,193	908,934	1,003,025	725,518	**754,249**	28,731	675,404
Operating margins after fixed charges	2,892,090	596,861	738,204	218,598	811,792	85,245	**655,420**	570,175	(242,545)
PATRONAGE CAPITAL CREDITS	42,563	40,416	38,048	67,853	56,472	56,472	**56,051**	(421)	67,853
Net operating margins	2,934,652	637,277	776,252	286,451	868,265	141,717	**711,471**	569,754	(174,692)
NON-OPERATING MARGINS									
Interest income	33,196	32,228	33,261	32,130	208,165	113,172	**21,164**	(92,008)	24,613
Other income	32,609	21,995	46,893	23,458	21,933	11,645	**9,422**	(2,223)	11,709
Total Opalco nonoperating margins	65,805	54,222	80,154	55,588	230,098	124,817	**30,585**	(94,231)	36,322
Fiber Optics Division (Island Network Department)									
IN Income	303,761	348,119	388,117	519,819	-	-	**-**	-	384,873
IN Expenses	169,562	225,095	273,006	739,907	-	-	**-**	-	422,889
Total Fiber Optics Division	134,199	123,024	115,111	(220,088)	-	-	**-**	-	(38,016)
Net non-operating margins	200,004	177,246	195,265	(164,500)	230,098	124,817	**30,585**	(94,231)	(1,693)
NET MARGINS	$ 3,134,656	$ 814,524	$ 971,518	$ 121,951	$ 1,098,363	$ 266,534	**$ 742,056**	475,522	$ (176,385)
OPALCO TIER	5.27	2.07	2.24	1.13	1.92	1.31	**1.83**		0.74
OPALCO Equity % of Total Cap	73.5%	72.1%	69.5%	61.32%	52.7%	58.0%	**55.1%**		65.0%
Rock Island Communications (to be transitioned to Subsidiary)									
NON-OPERATING MARGINS									
Island Network	-	-	-	-	(1,248,599)	(718,618)	**(1,491,454)**	(772,836)	-
Rock Island Communications	-	-	-	-	83,137	31,817	**(324,351)**	(356,168)	-
Net non-operating margin	-	-	-	-	(1,165,462)	(686,801)	**(1,815,805)**	(1,129,004)	-

2015 3rd Quarter Financials
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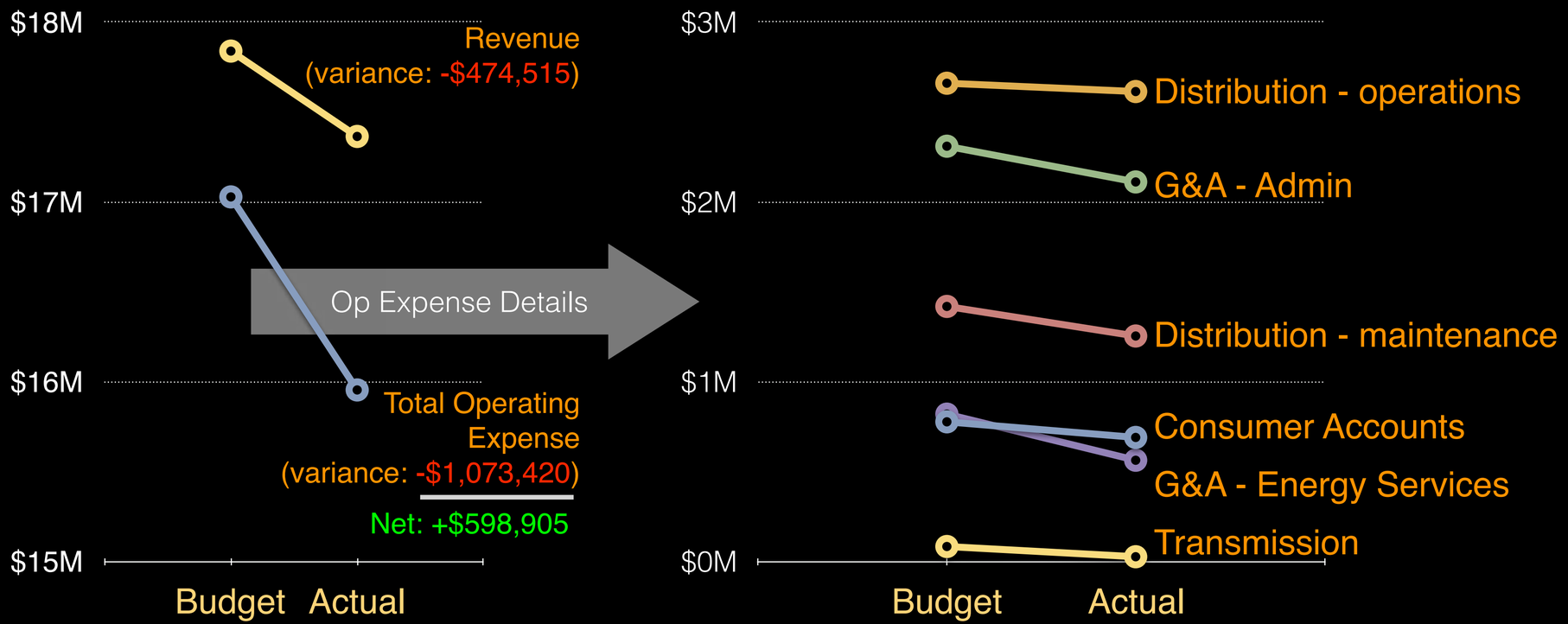
Headline

- Revenue down, but expenses are down more.

3rd Quarter Results

- Operating Margin: +$1,409,669
- Margin: +$742,056 (excludes Rock Island)



2016 Budget

Preparing a Budget

Starts with the member…

What service level do they want?

reliability, customer service, affordability,…

What does it take to deliver that service?

staff, crew, equipment, facilities, systems,…

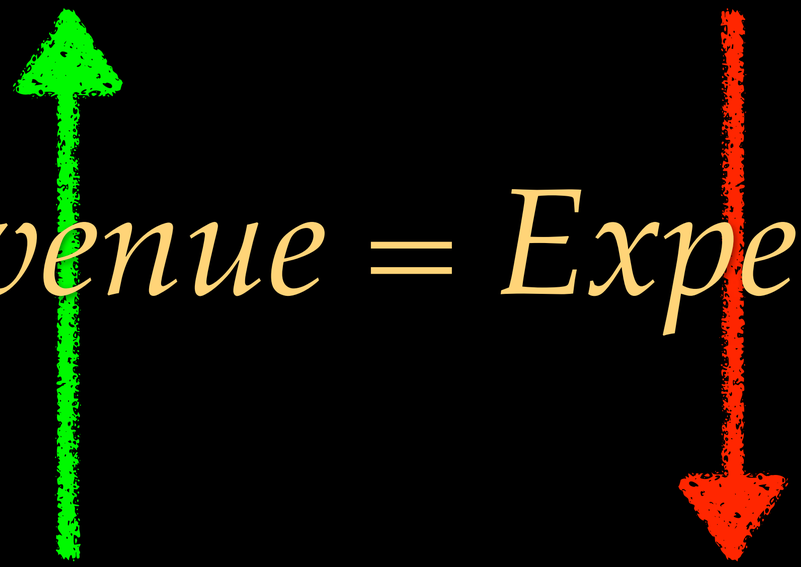
That defines the expense…

and as a nonprofit Co-op

Revenue = Expense

$$Revenue = Expense$$

Choices

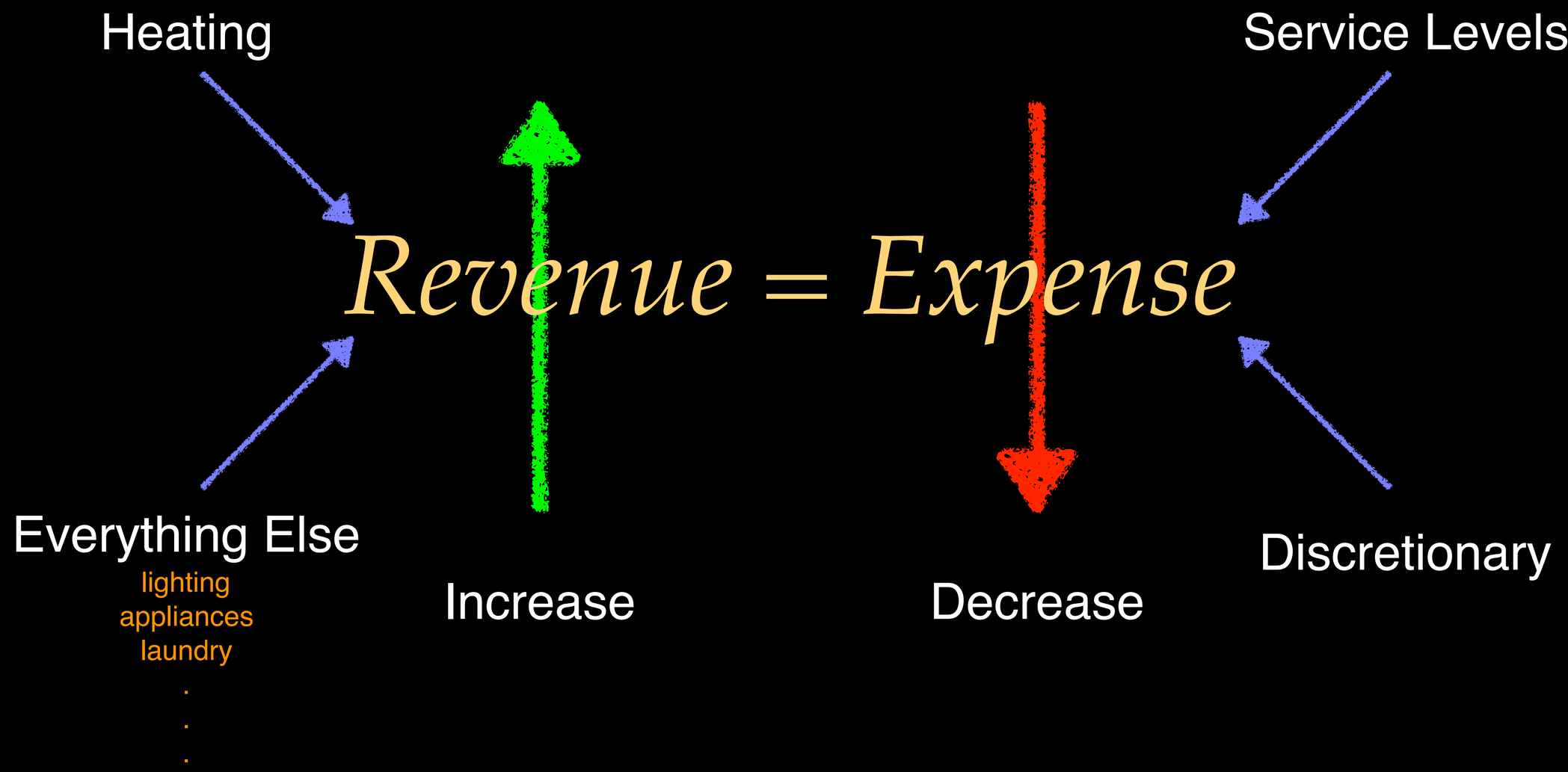


Revenue = Expense

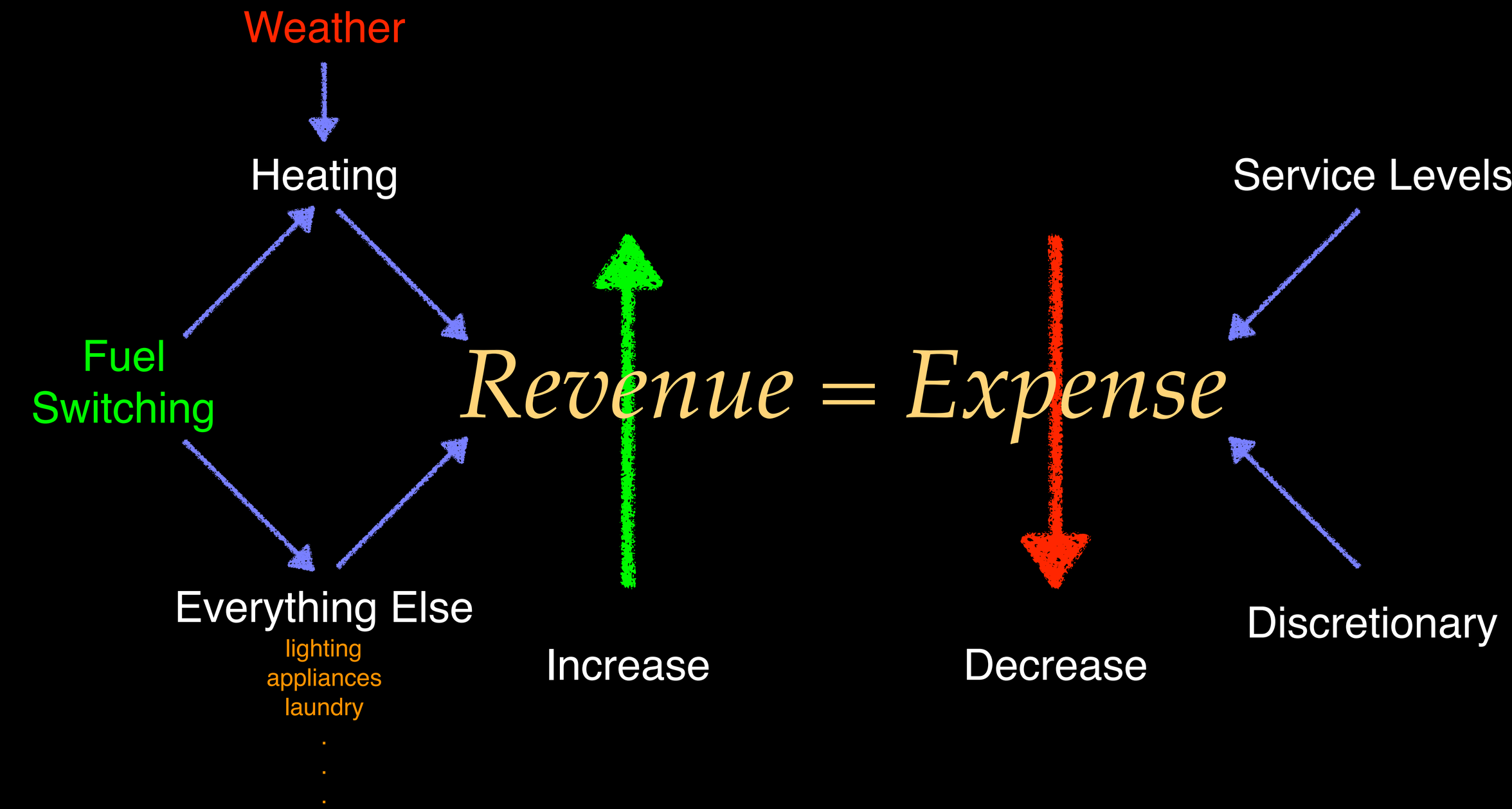
Increase

Decrease

Drivers


Heating
Service Levels
Revenue = Expense
Everything Else
lighting
appliances
laundry
.
.
.
Increase
Decrease
Discretionary

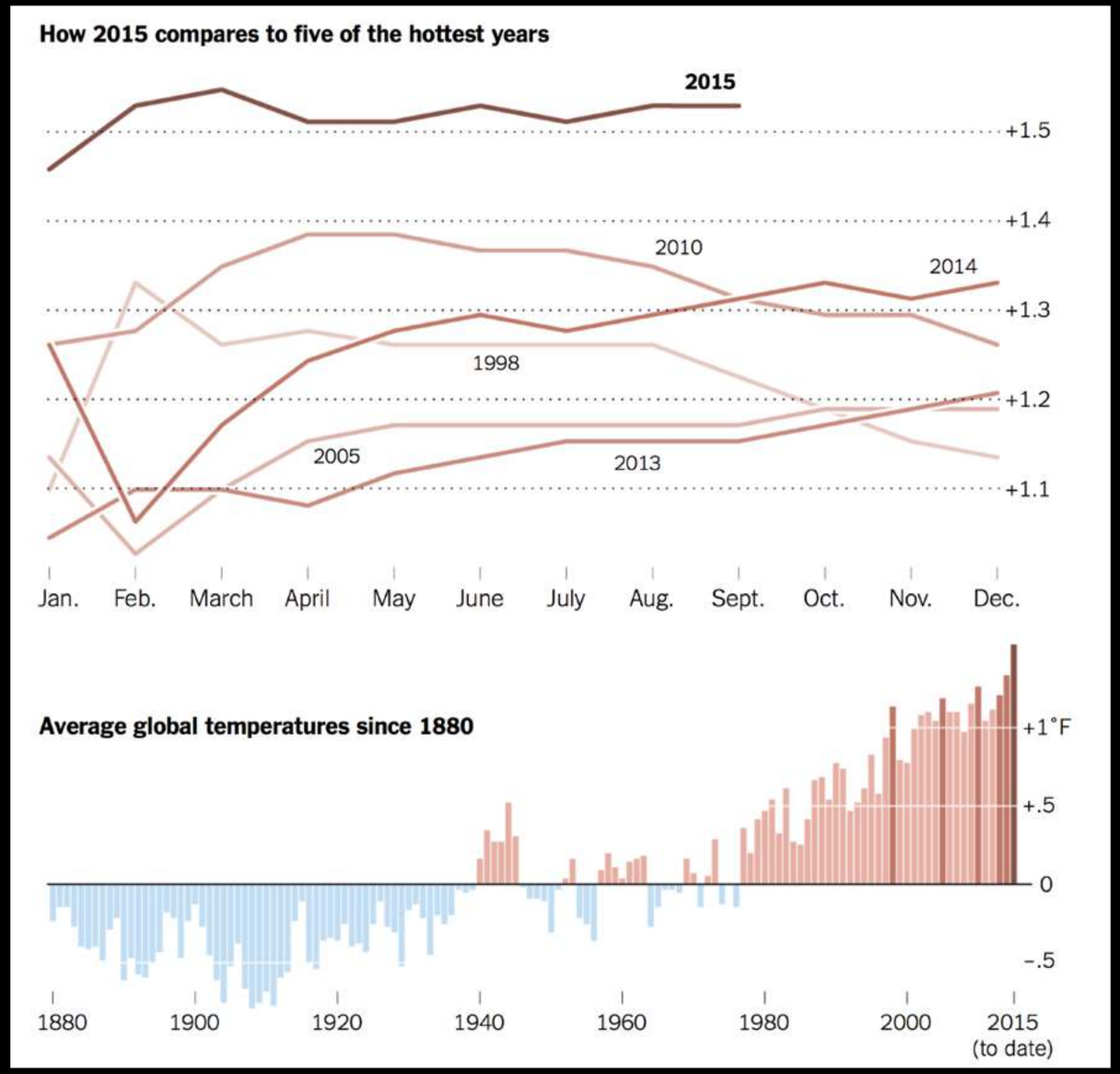
There are things we control and things we don't.



Revenue

Load Forecast

El Niño: Global Perspective



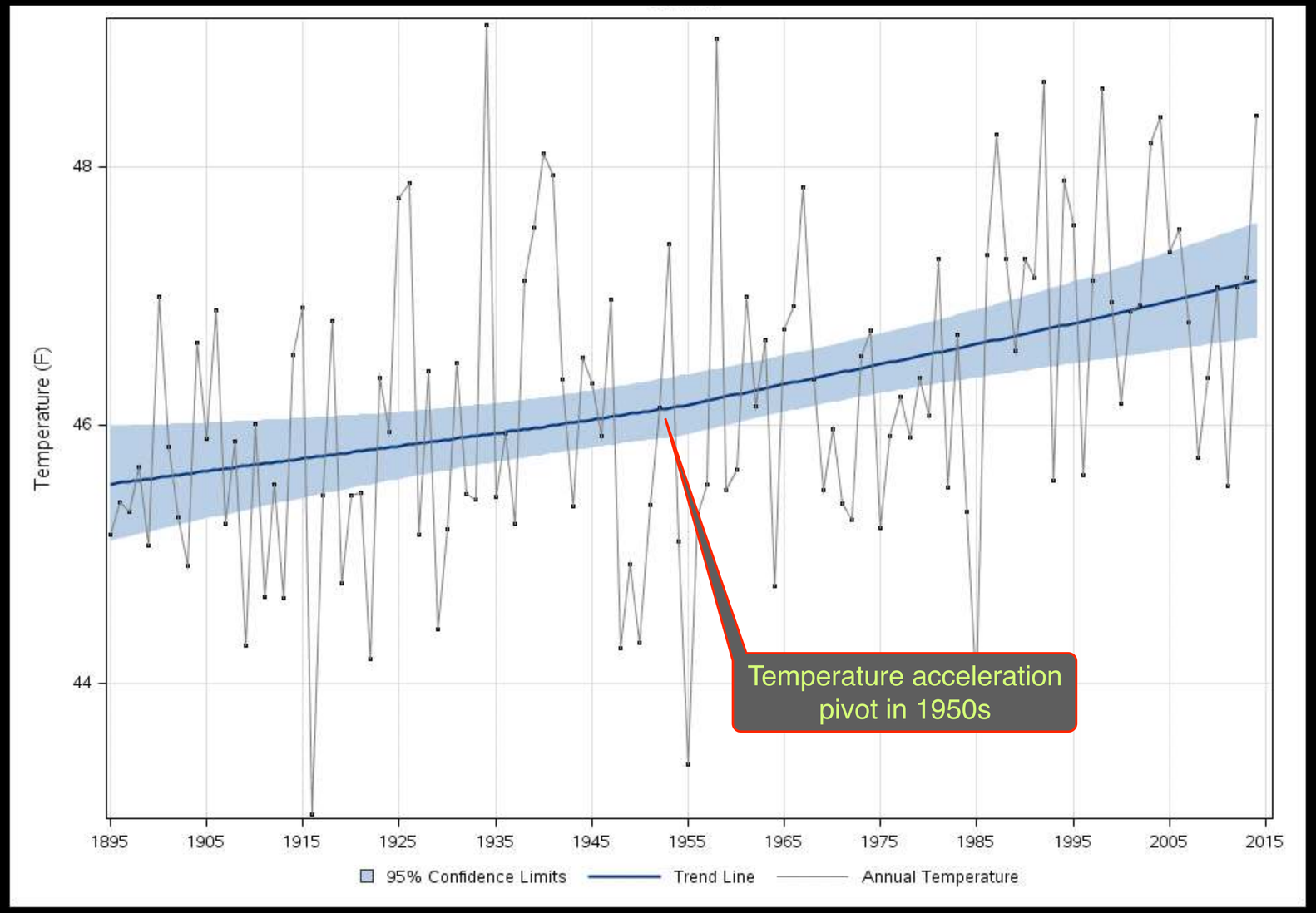
Headline

- This year will almost certainly be the warmest year in recorded history.
- There is an approximately 95% chance that El Niño will continue through Northern Hemisphere winter 2015-16, gradually weakening through 2016.
  NOAA
- Temperatures relative to 20th century average

Source: NOAA

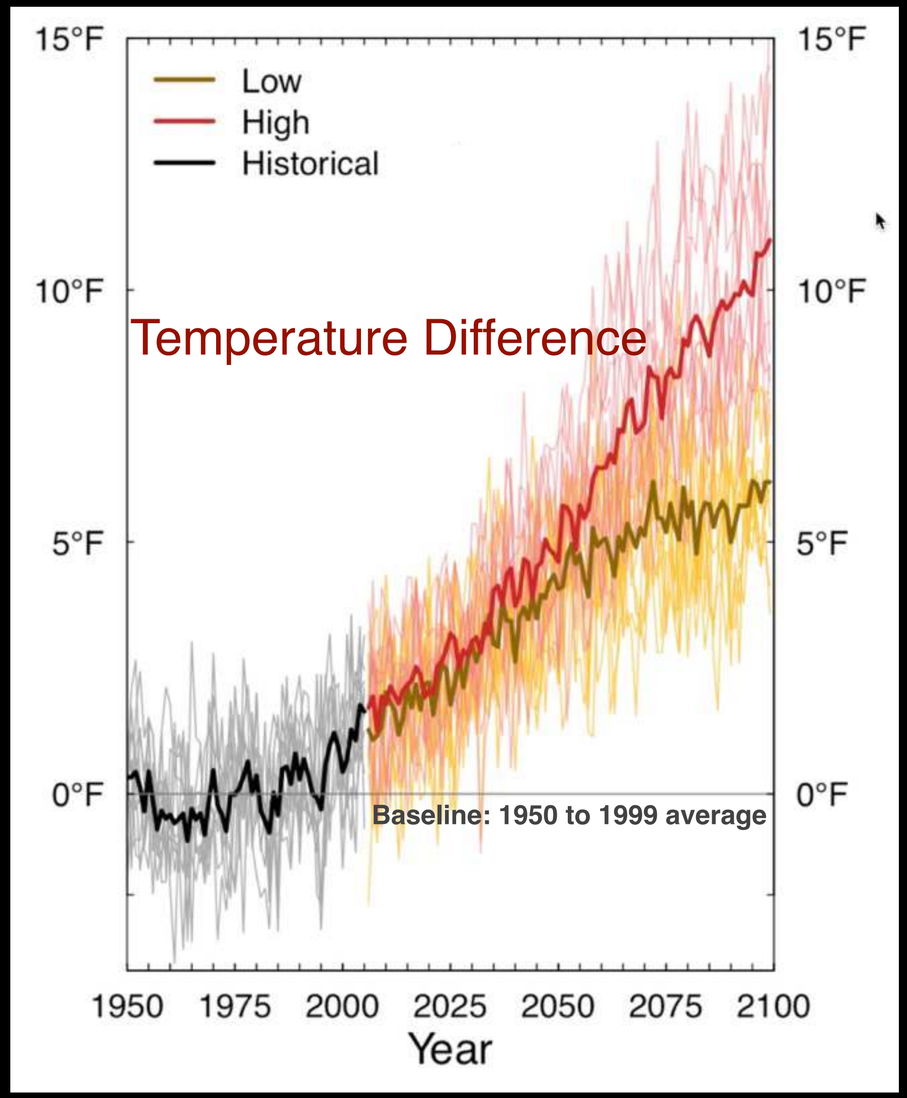
Warming Trend: Washington State

WA Annual Mean Temperature



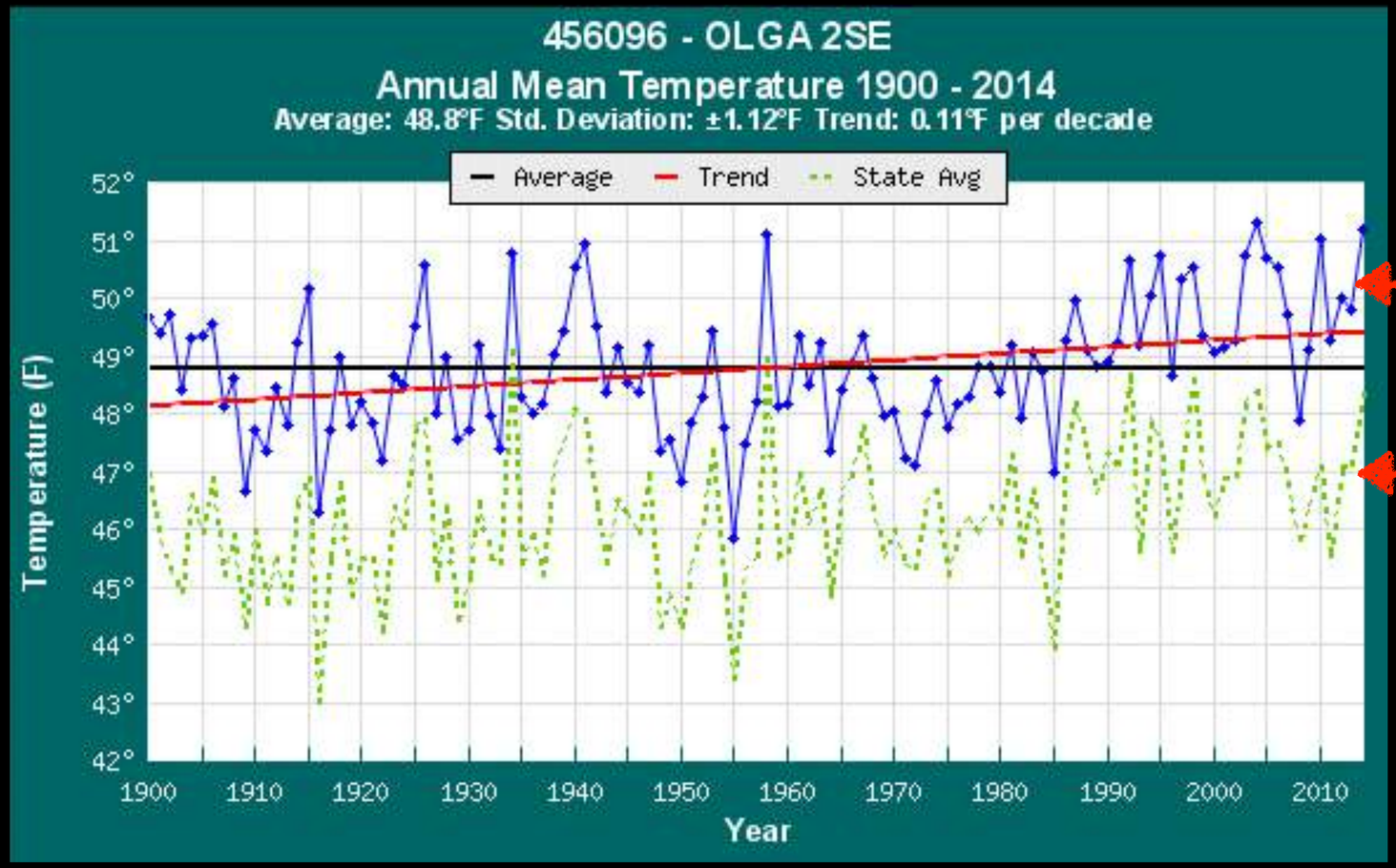
Temperature Difference

(relative to 1950 to 1999 average)



Source: NOAA, UW Climate Impacts Group

Warming Trend: Olga Weather Station



Olga

WA State

Headline

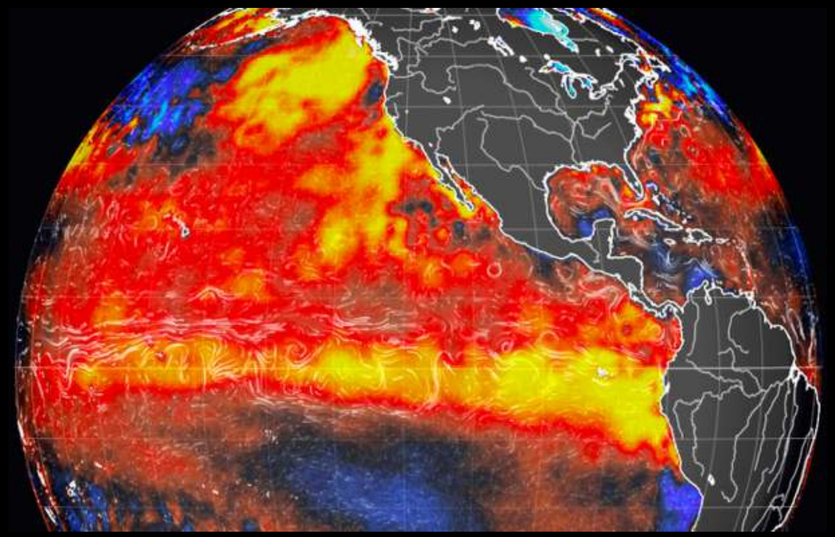
- Olga has one of the longest consistently measure temperature records in the state.
- Olga and the county, is warmer than State average, due to the moderating influence surrounding Salish Sea
- Since 1986, temperature is significantly above 20th century average

Source: NOAA

OPALCO Interview with Cliff Mass on SJC Weather

Last Winter

"Last year was just crazy - completely anomalous. Last year is like the absolute worst case, like traveling to 2070 and seeing what global warming will be like. "

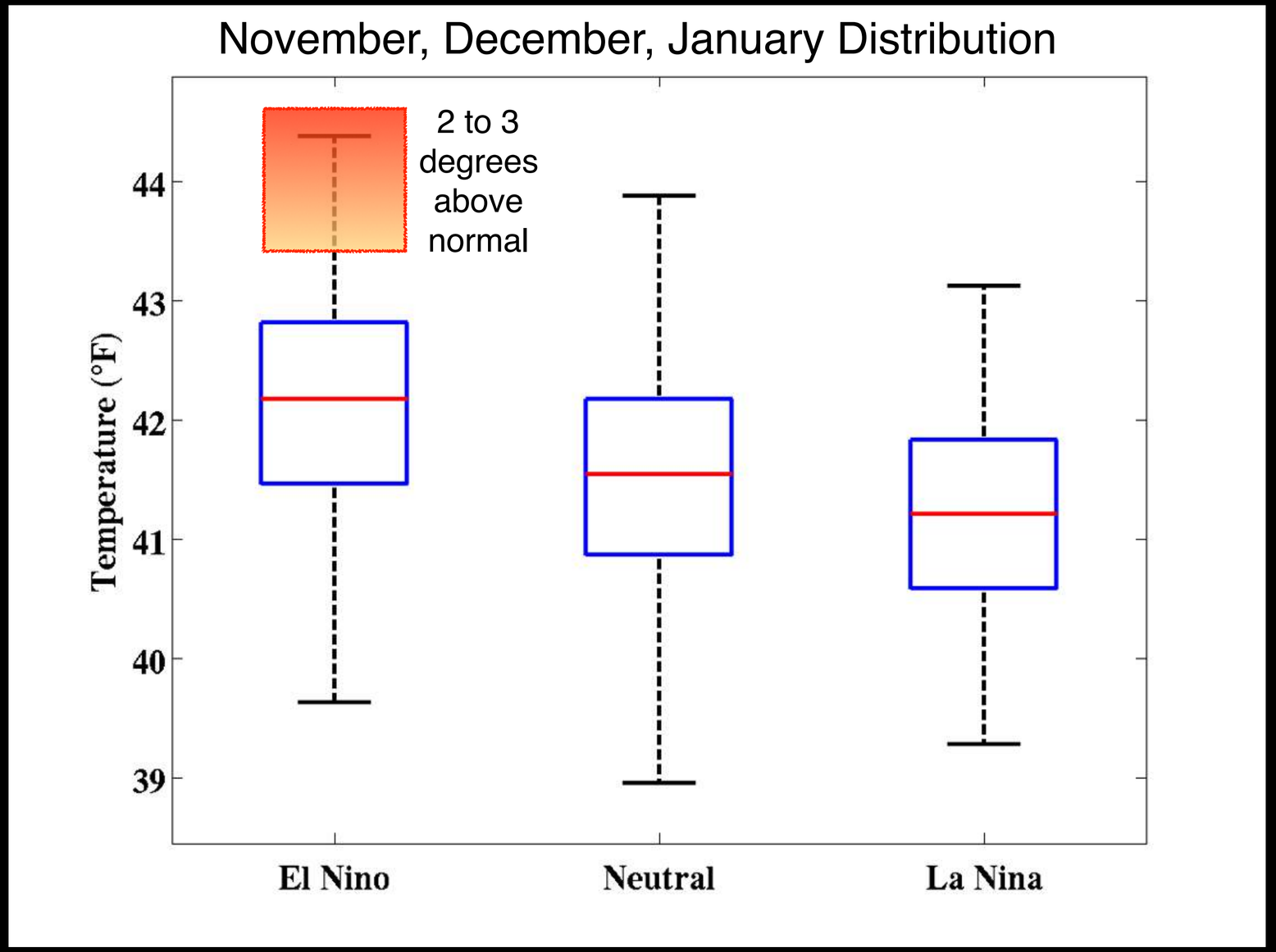


This Coming Winter

"This a very powerful El Niño, one of the most powerful in the last 50 years. I don't think it will be as warm as last year, but a few degrees C above normal is something you can probably bet on. And that signal is strongest after the new year.

It's going to be a warm winter - period."

El Niño: SJC Region – Temperature Distribution

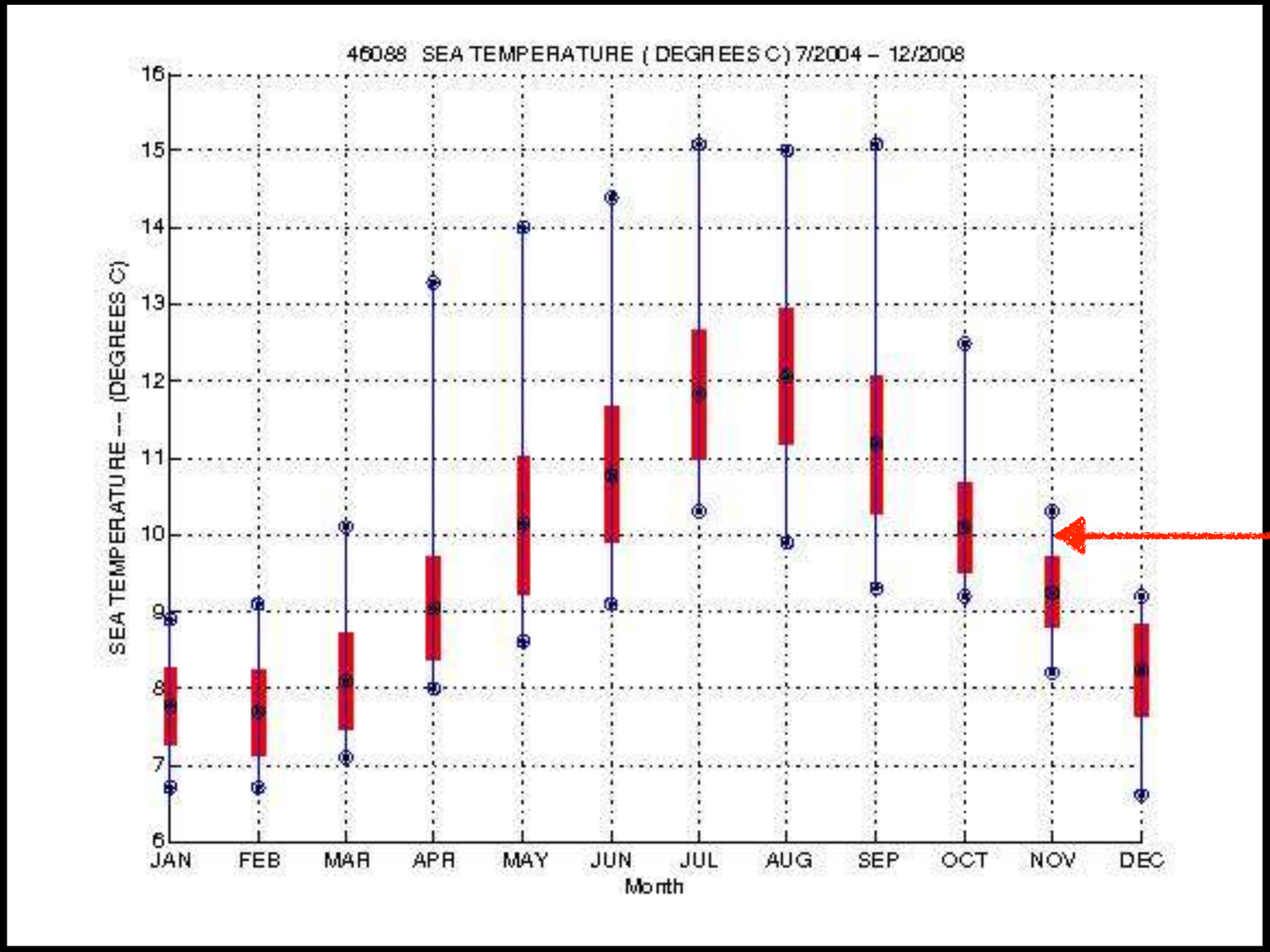


Headline

- In our region, the typical El Niño is averages about 1 degree warmer than normal in November, December, January period. The current El Niño is expected to be 2 to 3 degrees above normal.
- The current El Niño is expected to be one of the biggest in the past 50 years.

Source: NOAA

El Niño: Sea Temperature

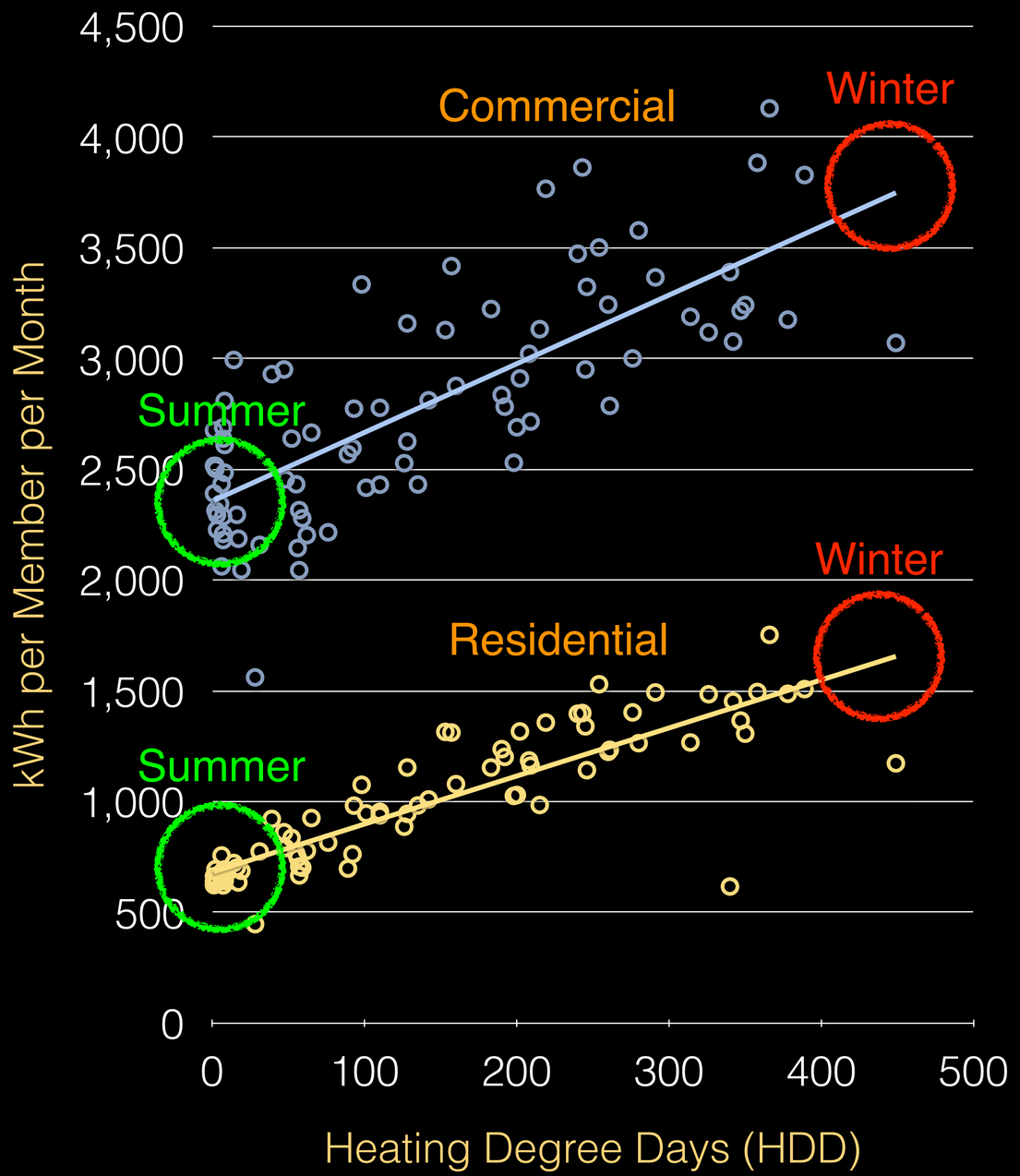


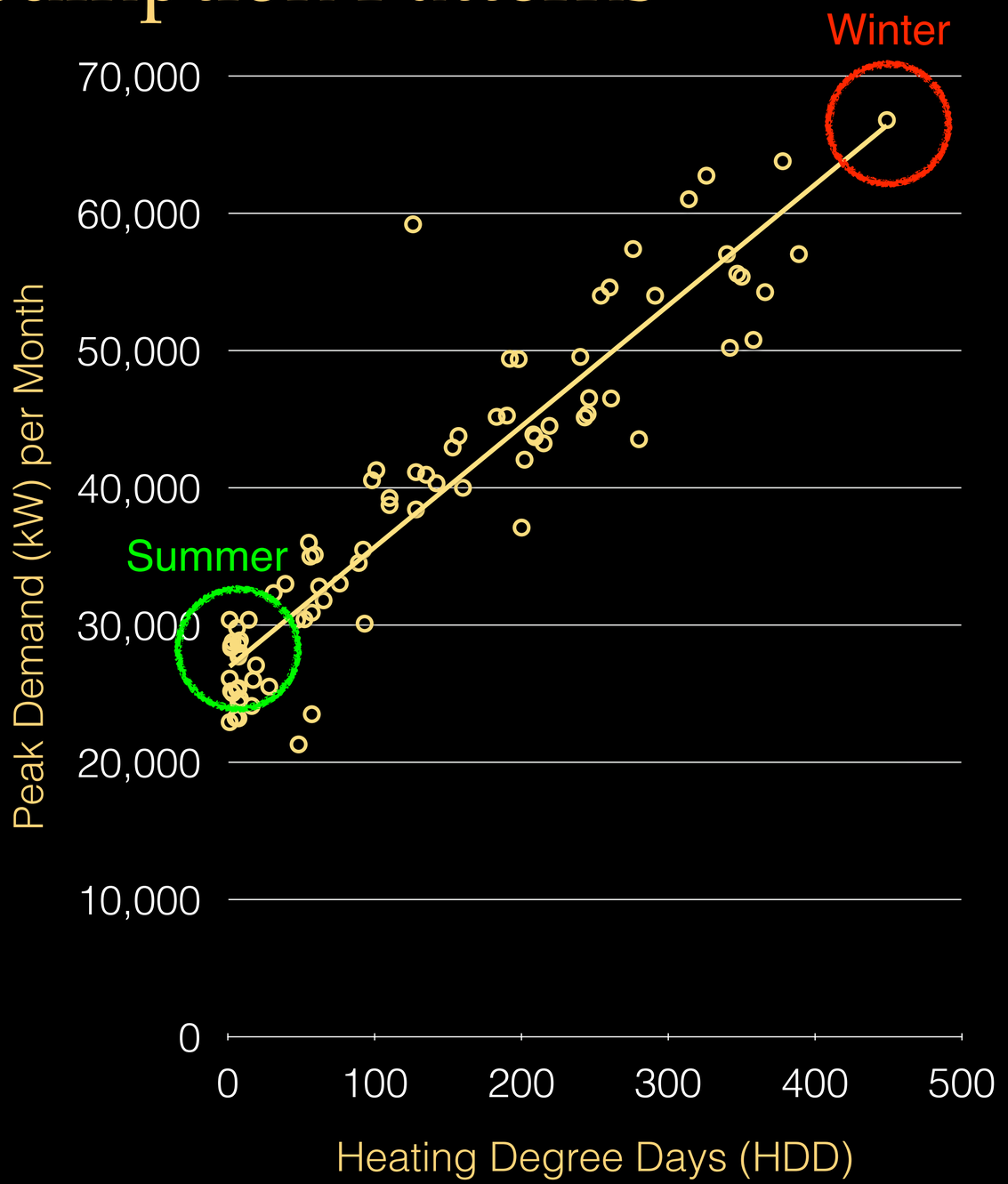
Headline

- Sea temperature is warmer than normal for November (average 2004 through 2008)

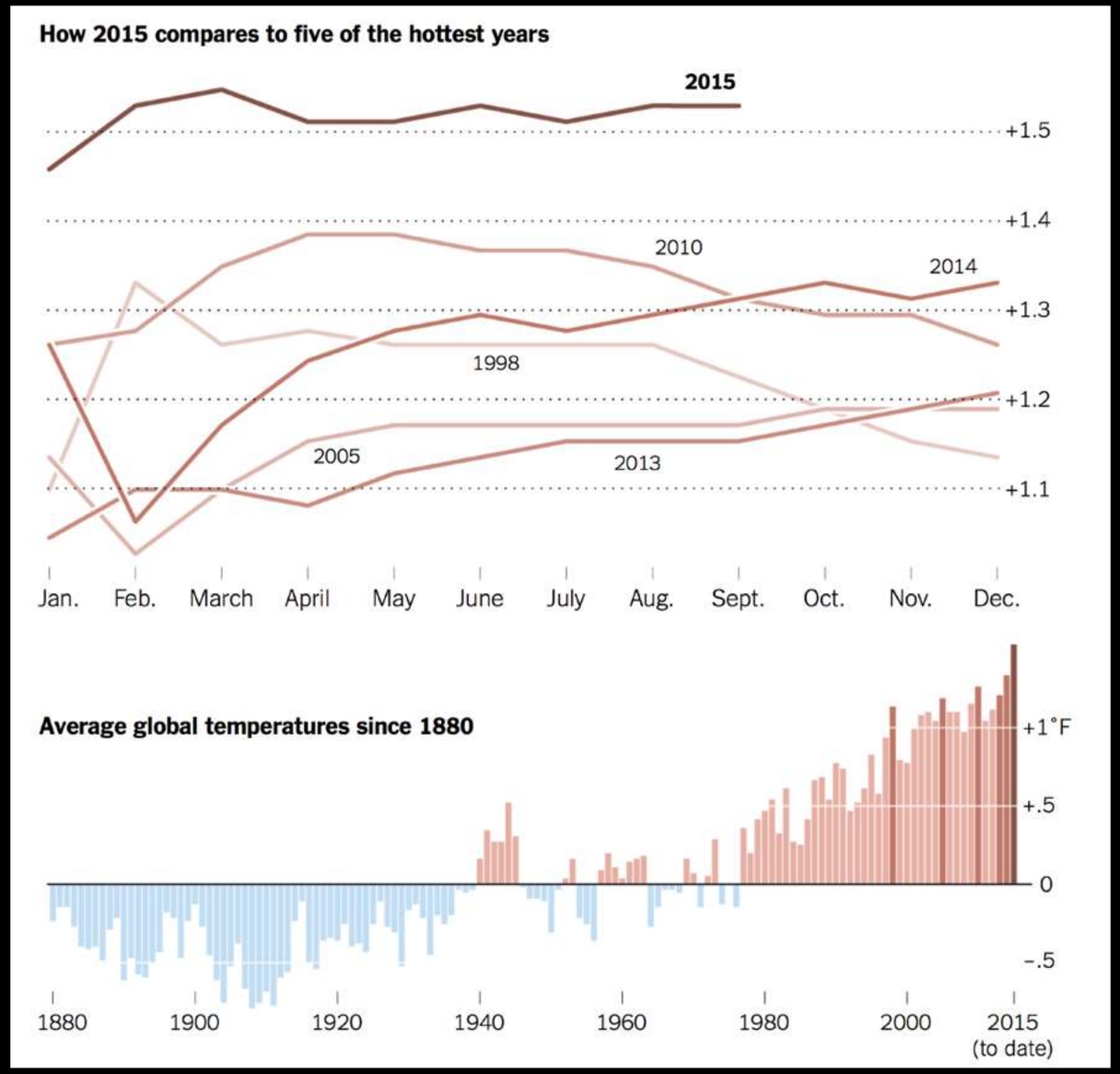
Source: NOAA, National Data Buoy Center

Seasonal Energy Consumption Patterns





El Niño: Global Perspective



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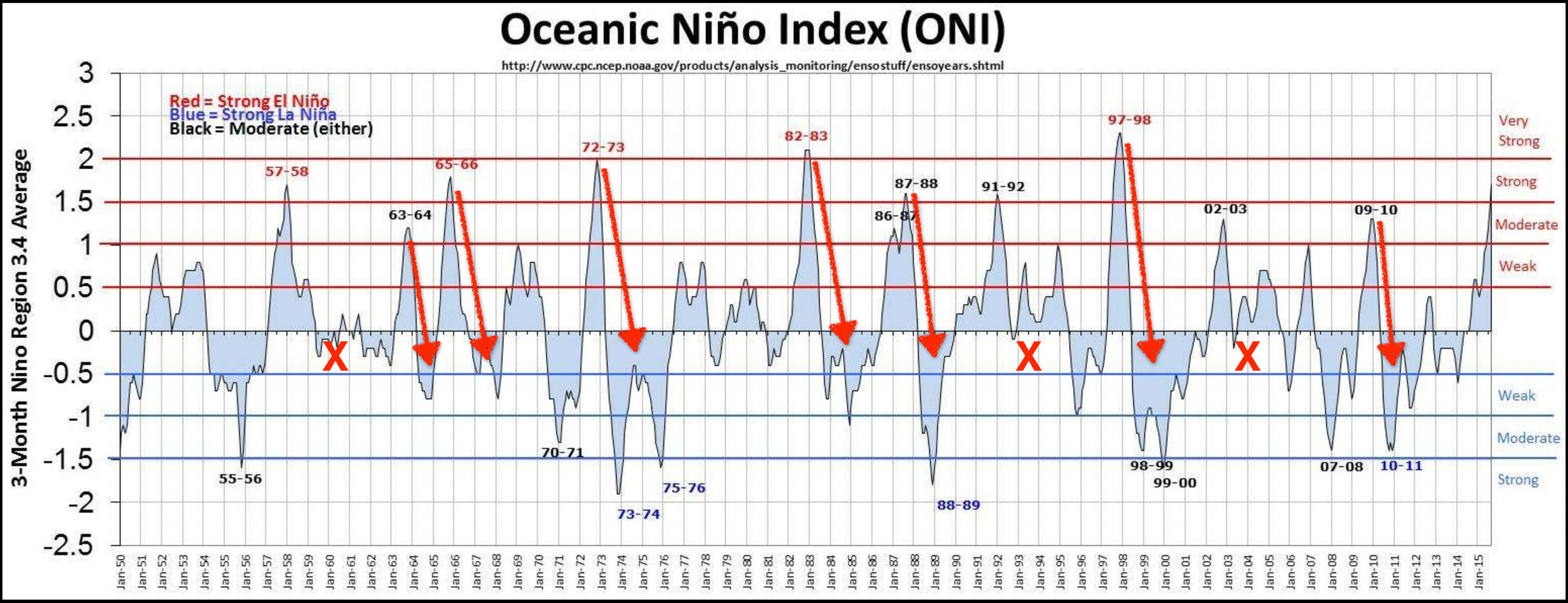
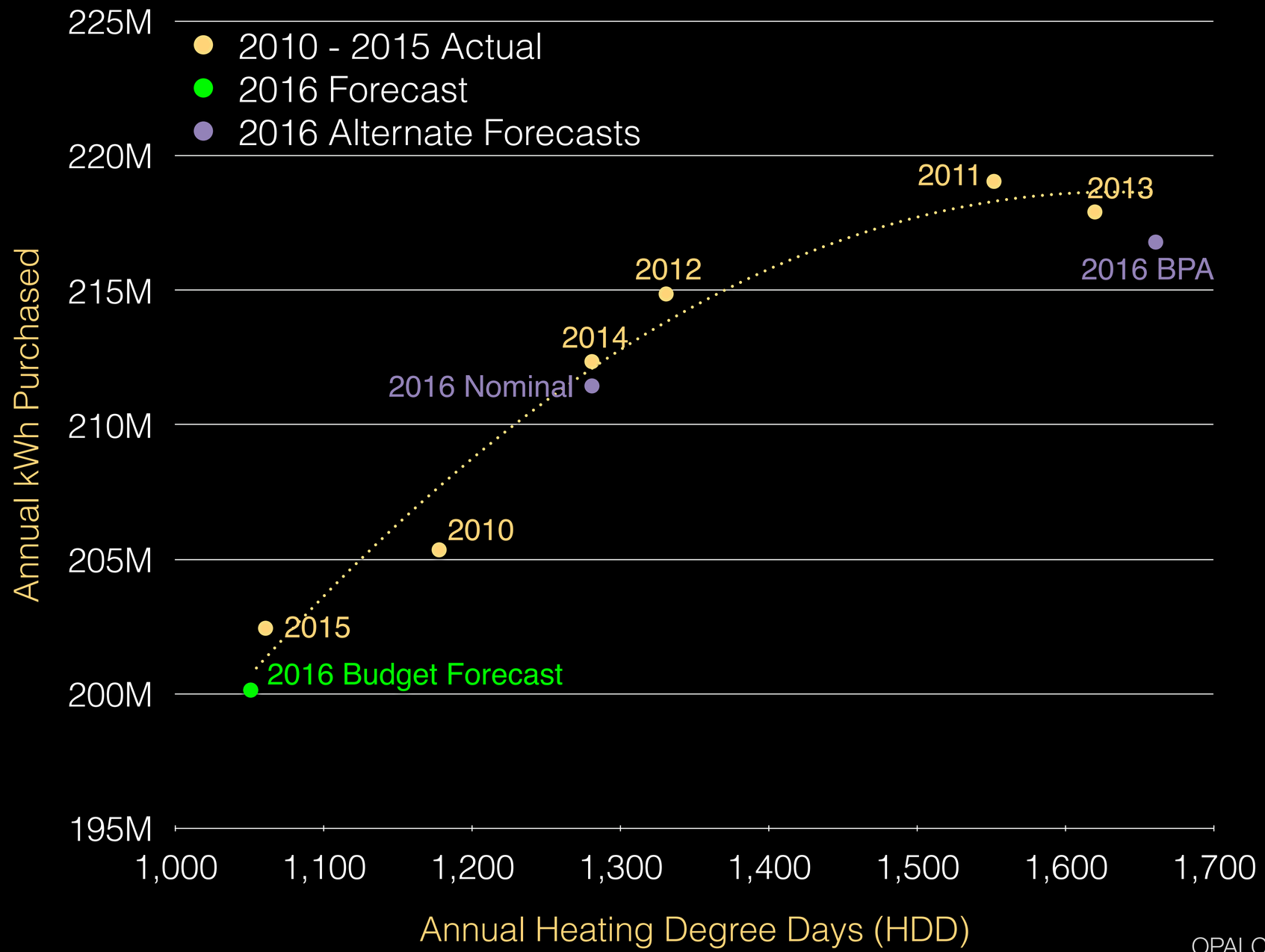
  NOAA
- Temperatures relative to 20th century average

Source: NOAA

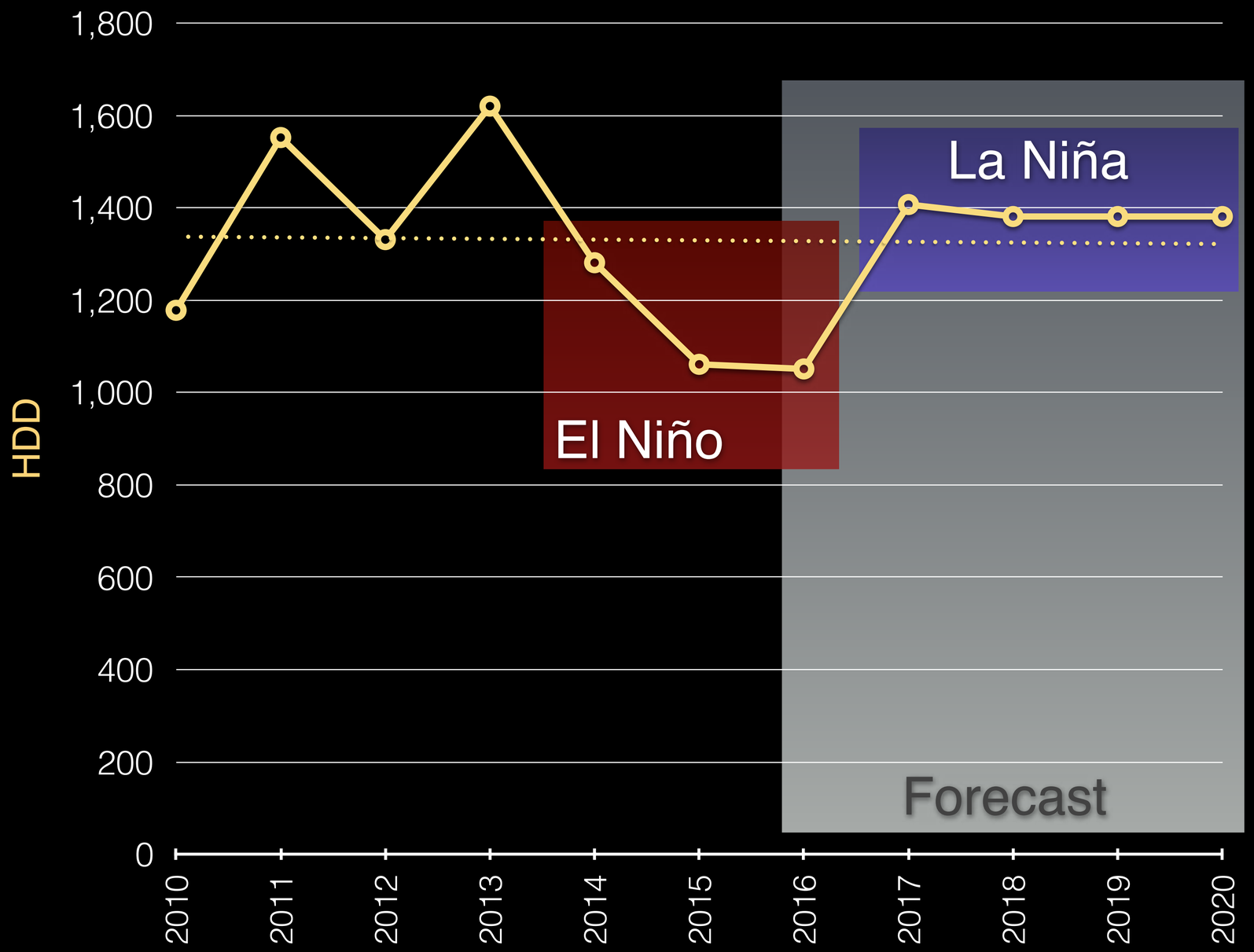
Global El Niño: Usually followed by extended La Niña



2016 Load Forecast



SJC Heating Degree Days (HDD)



Fuel Switching

reduces Co-op members energy bill
and carbon footprint

Dan Kammen on Energy in San Juan County

Energy-policy expert
Distinguished Professor of Energy at UC, Berkeley
Founded and directs the Renewable and Appropriate Energy Laboratory

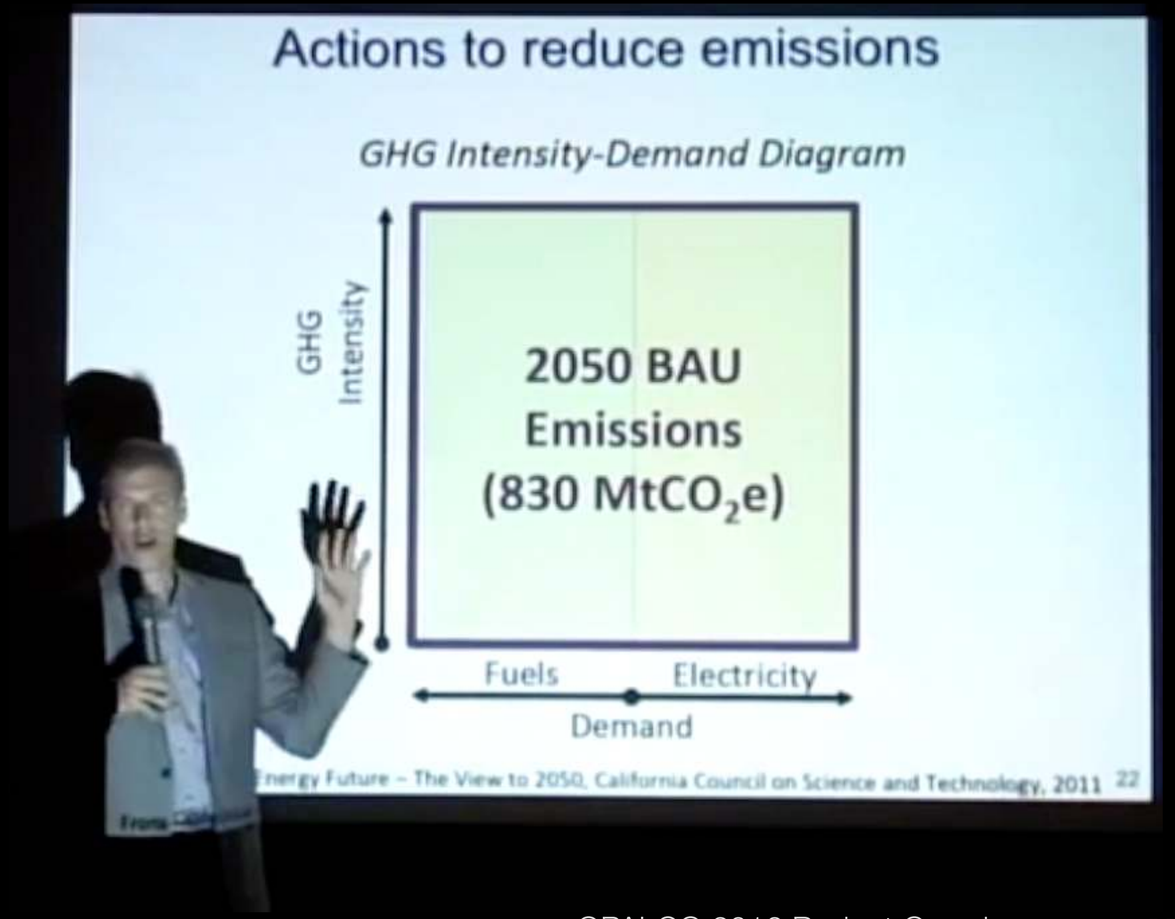
Energy Roundtable in Friday Harbor

Sponsored by OPALCO and San Juan Islands Conservation District

Presentation and Discussion

- **San Juan Island**
  Sponsored by OPALCO and San Juan Islands Conservation District

- **Orcas Island**
  Sponsored by Orcas Currents and OPALCO



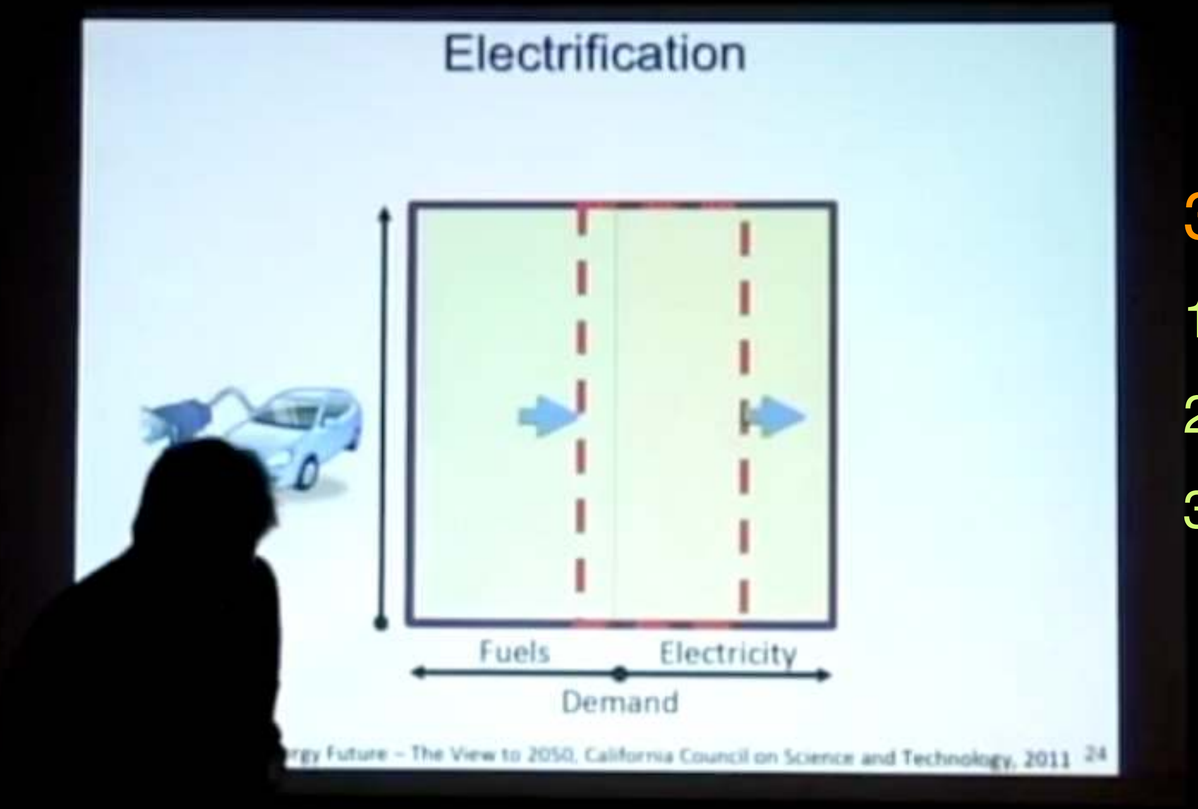
Dan Kammen

On Energy and Fuel Switching

"With over 70% of the islands carbon footprint coming from transportation and heating, Co-op members have a unique opportunity to reduce their carbon footprint and energy bill by "fuel switching" from fossil fuels –propane, heating oil and gasoline – to cleaner, lower cost OPALCO electricity."

Dan Kammen on Energy in San Juan County

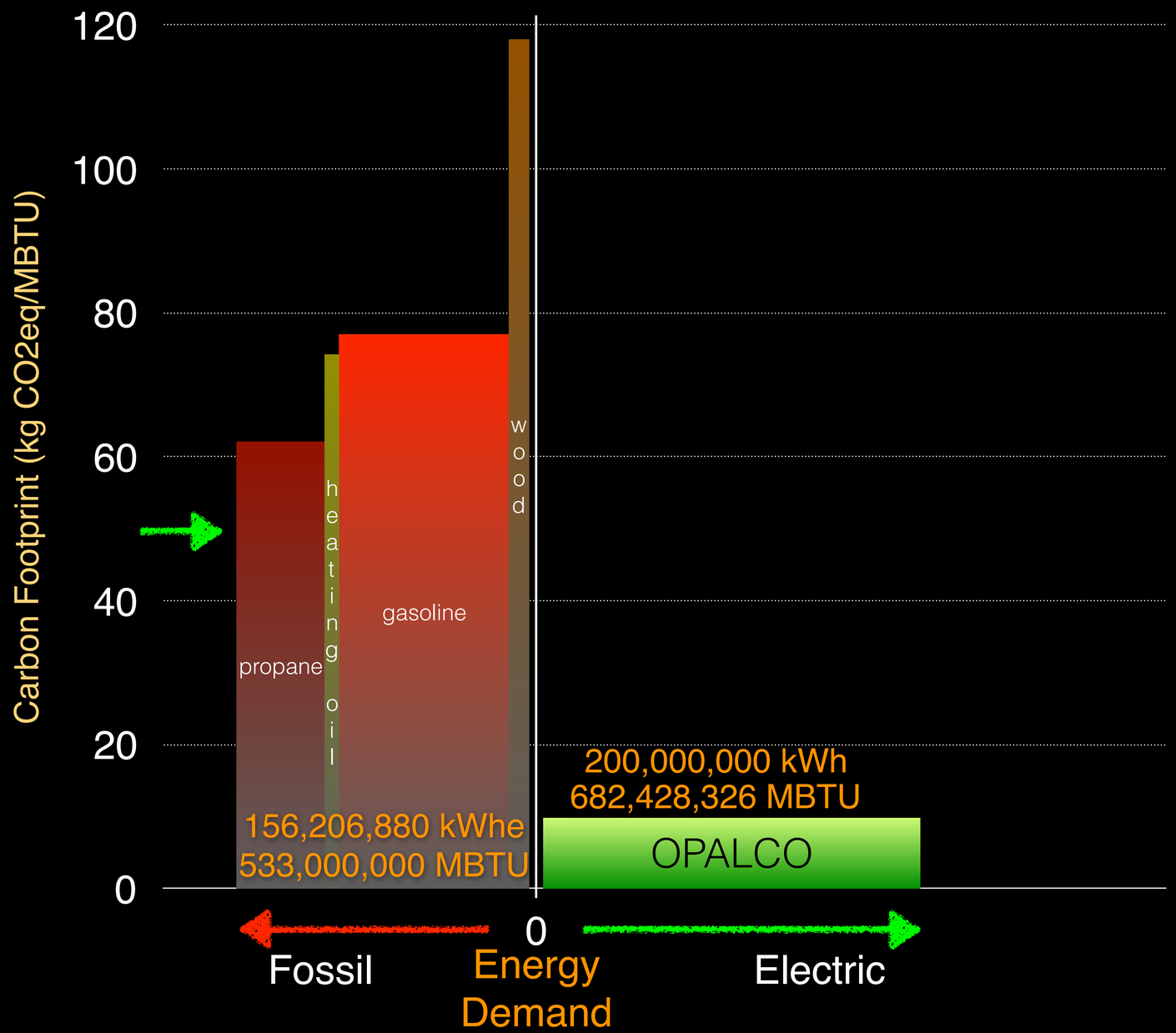
"Electrify Everything"



3 Steps to Cleaner Lower Cost Energy

1. Shift fuels from propane, gasoline, etc., to electricity
2. Continue making electricity cleaner and cleaner
3. Continue increasing energy efficiency

Annual SJC Energy Use and Carbon Footprint



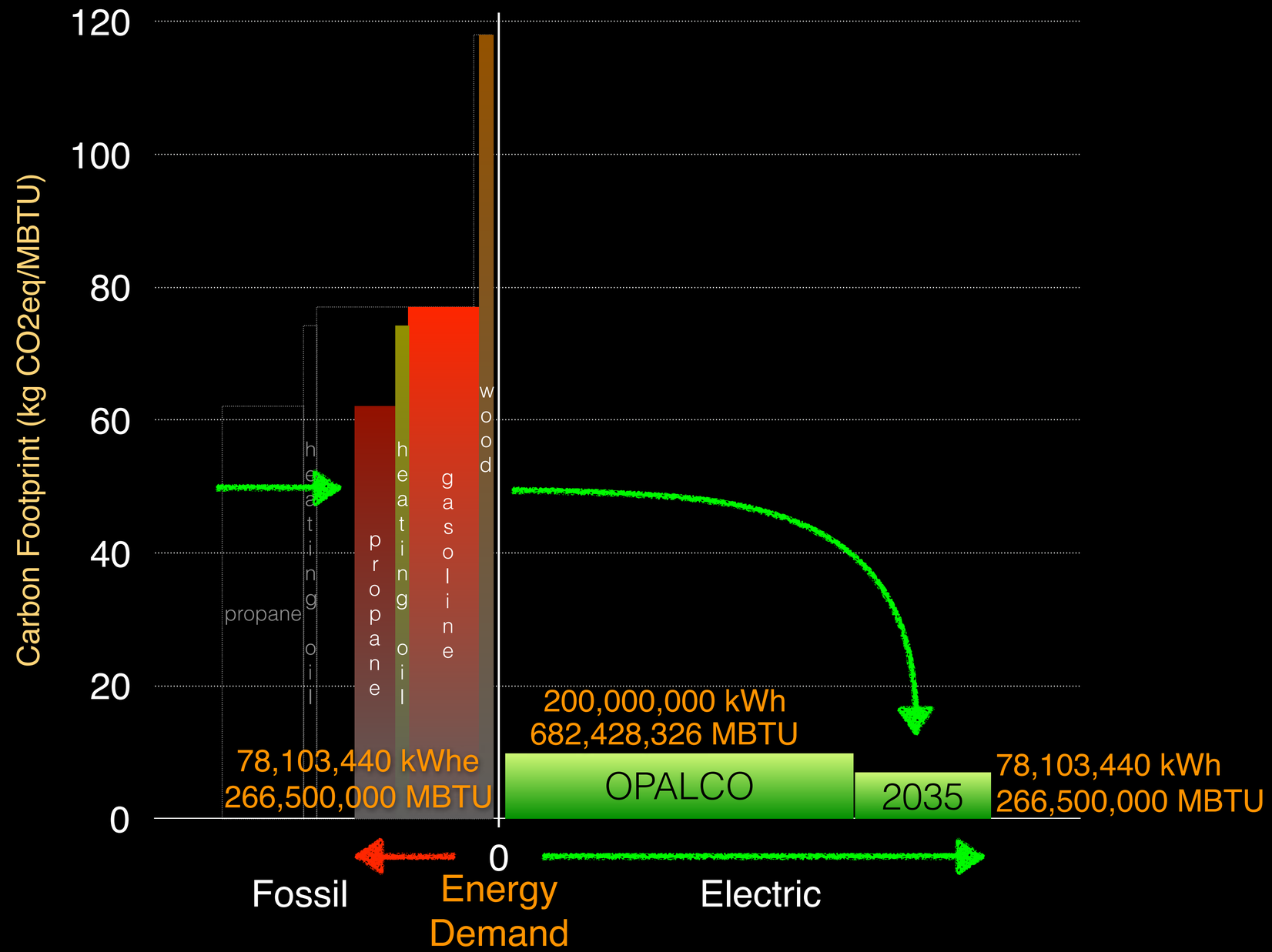
Headline

- Electric is the lowest cost cleanest energy in the county
- Electric market share is growing as members shift from fossil fuels to electric heating and transportation
- Over the coming decades, a significant portion of fossil energy will shift to electric as heat pumps and electric vehicles proliferate

Notes

- Width proportional to total energy used in county
- Height proportional to carbon footprint
- All energy normalized to MBTU for comparison

Annual SJC Energy Use and Carbon Footprint



Headline

- Cutting fossil fuels by 50% transfers 78 million kWh to the electric side

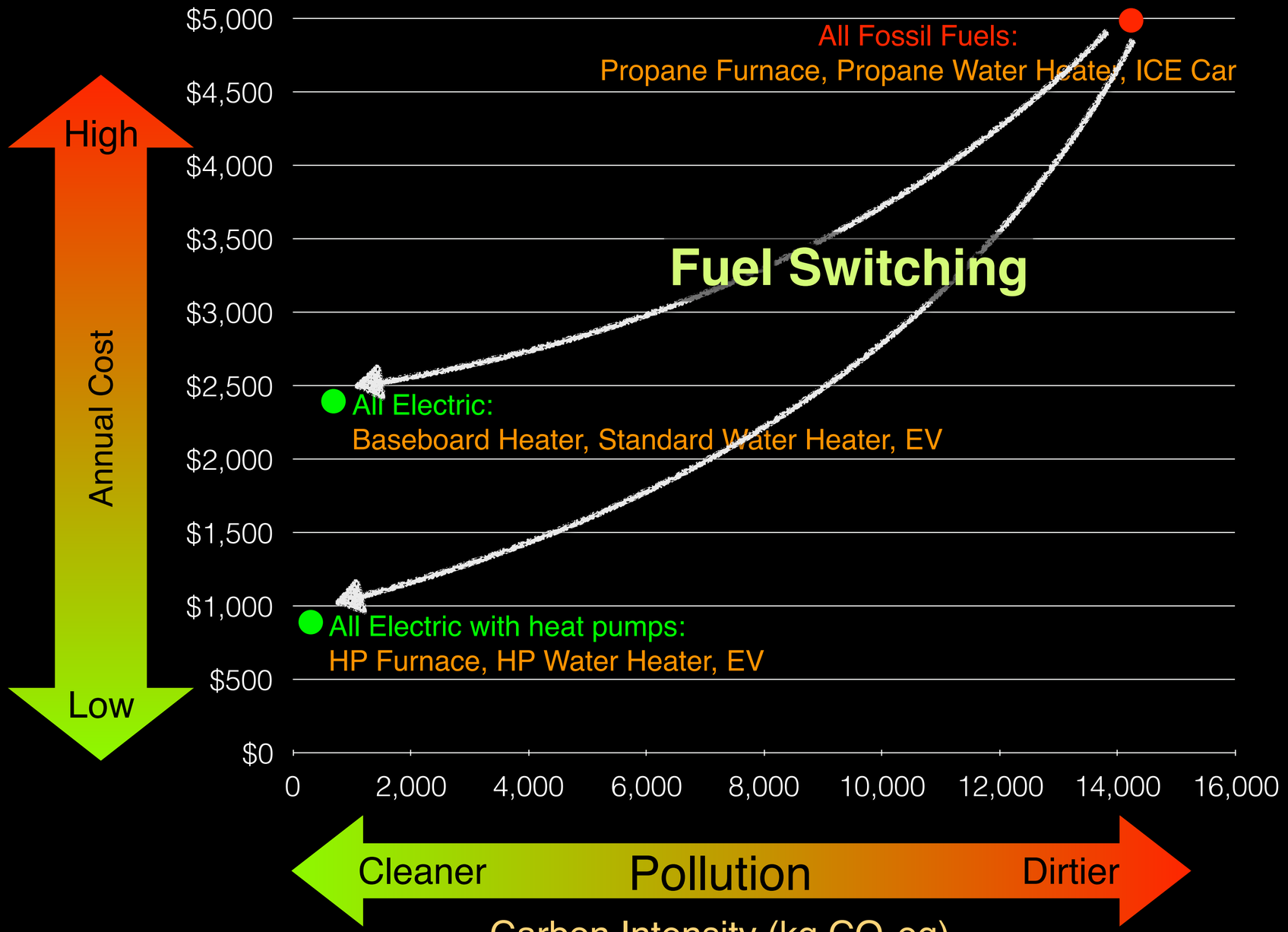
Notes

- Transfer is actually smaller since electric heat pumps are much more efficient than fossil fuel heaters, hence, less energy needed.
- This is a long term trend e.g. by 2035, most vehicles will be electric

Fuel Switching

reduces Co-op members energy bill
and carbon footprint

All Electric Home and Car Versus Fossil Fuel



Headline

- Fuel switching reduces member total energy cost and carbon footprint by shifting from more expensive polluting fossil fuel heating and transportation to electric.
- Heat pumps provide the lowest cost of heating, thanks to their very high efficiency.

Notes

- GREEN = Electric heating and car
  RED = propane heating and gasoline car

Source: EIA, EPA, OPALCO

So what does that mean for the 2016 budget?

Education, planning, cost-neutral incentives, etc.

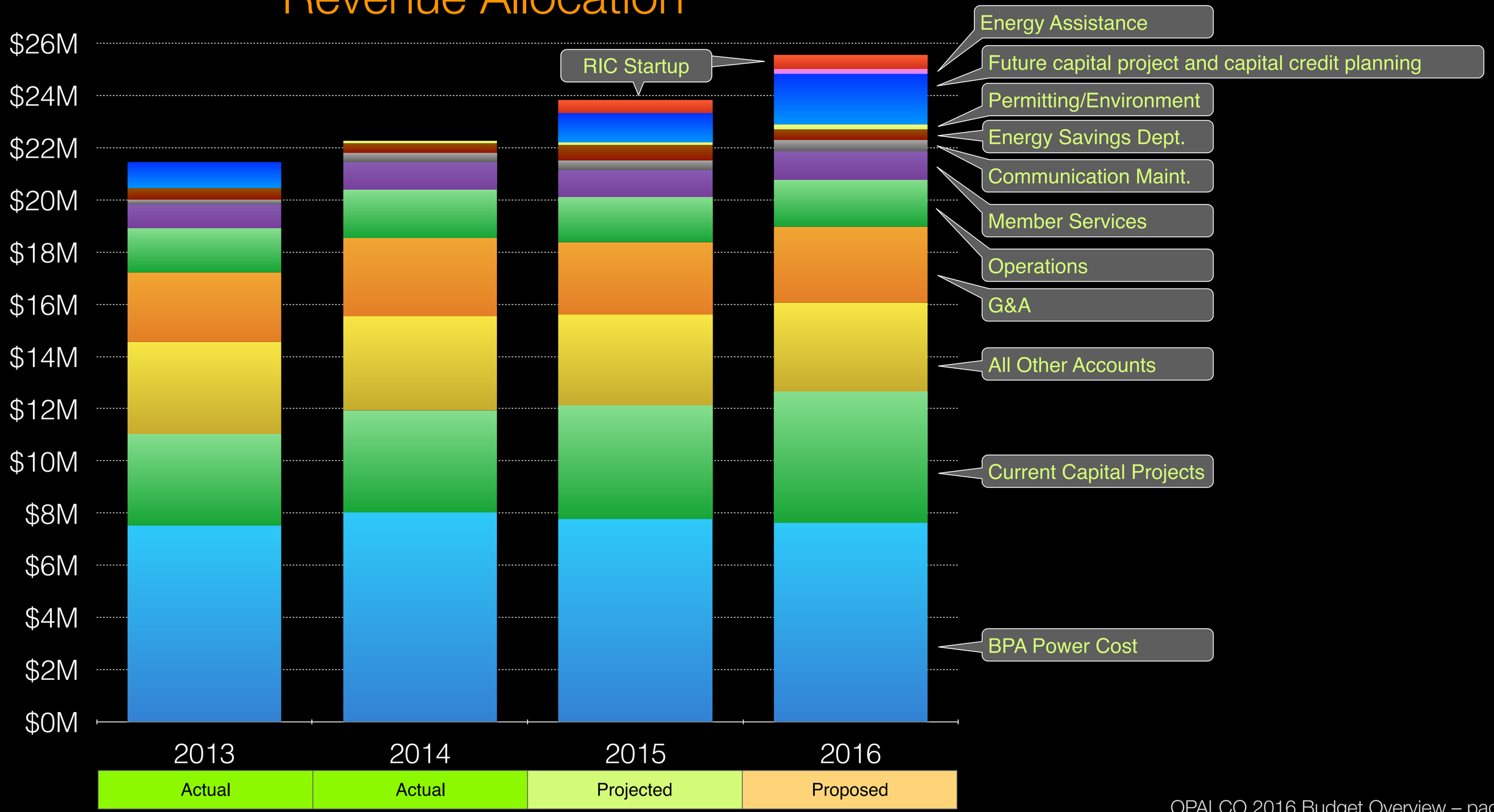
Expenses

Energy Purchases
People
Everything Else

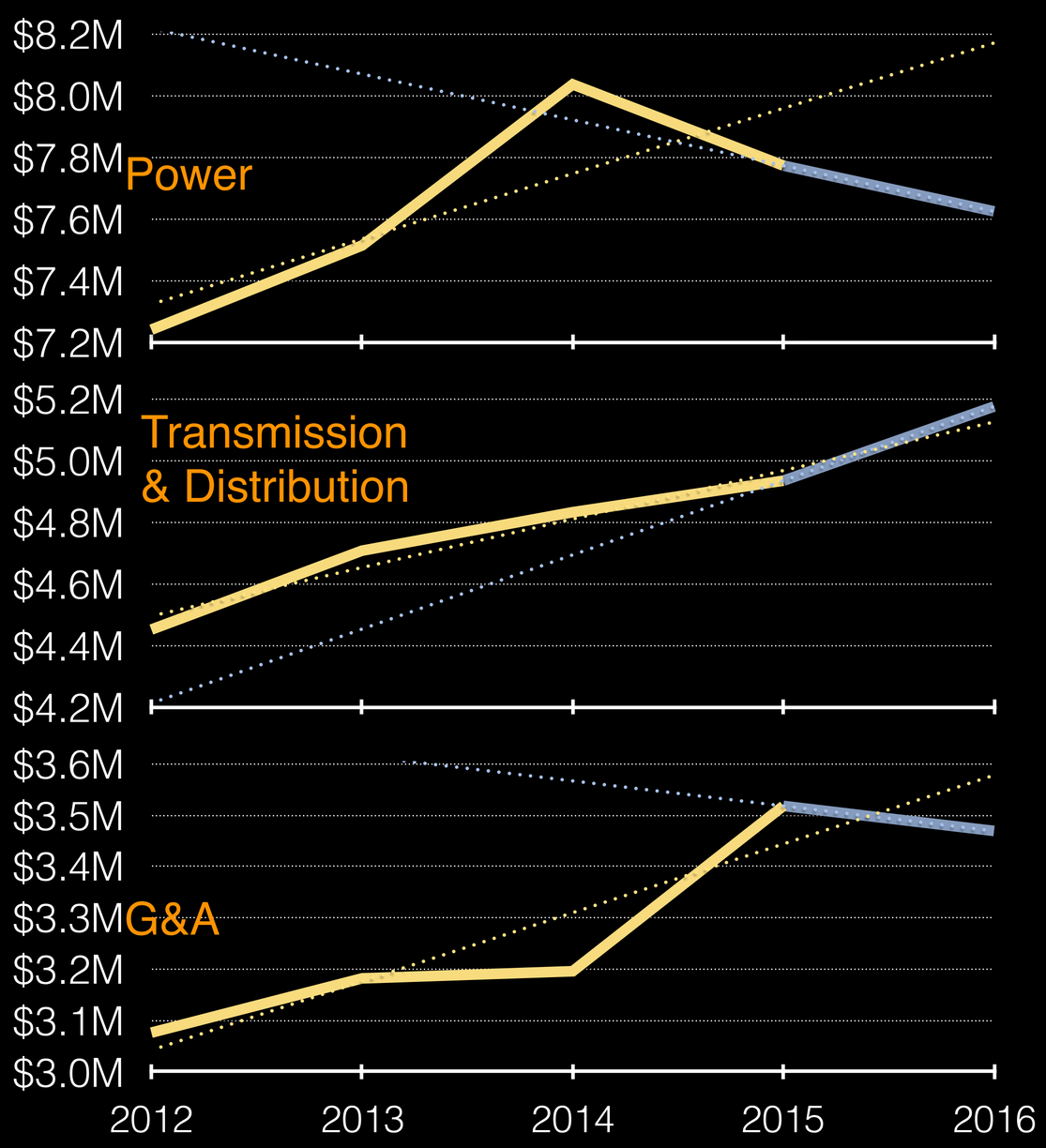
2016 Budget: Notable Drivers

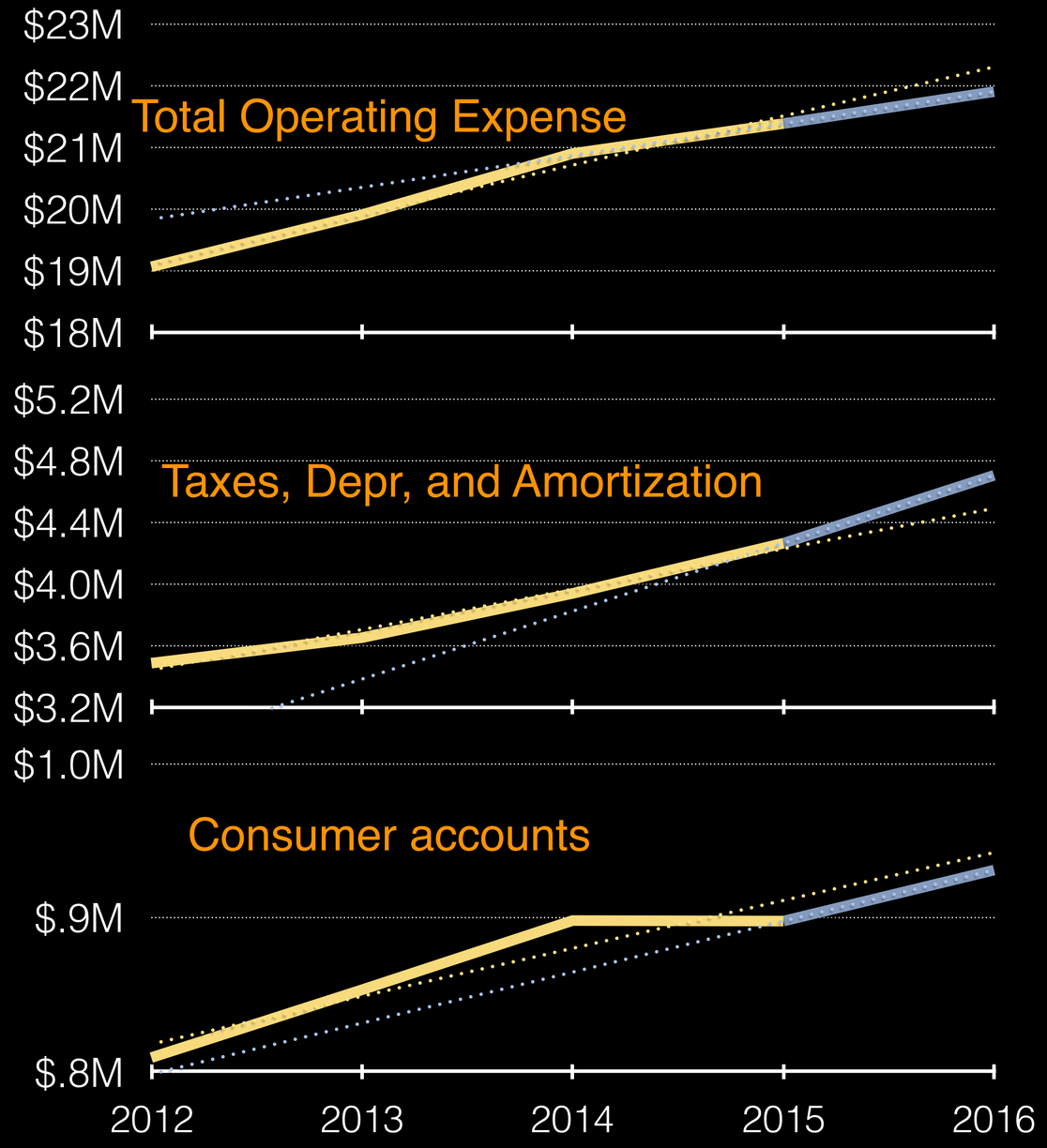
	Annual Comparison with Recommended Budget	A. Audited Year End 12/31/2014	B. Approved Budget 12/31/2015	C. Projected Year End 12/31/2015	D. **Proposed Budget 12/31/2016**	E. % Change (F / C)	F. Increase/Decrease Over Projected (D - C) 12/31/2015	G. Forecast 12/31/2017	H. Forecast 12/31/2018	I. Forecast 12/31/2019	J. Forecast 12/31/2020	J. Comments
1	% Rate Increase				**5%**			5%	6%	6%	6%	
2	% Revenue Increase	3%	12%	5.8%	**7%**			12%	5%	6%	6%	
3	Revenue	$ 22,029,025	$ 24,697,141	$ 23,313,742	**$ 24,836,222**	7%	$ 1,522,479	$ 27,707,306	$ 29,060,284	$ 30,787,349	$ 32,616,757	As recommended on the Rate Sensitivity sheet.
4	Expenses											
5	BPA power cost	8,037,428	8,452,880	7,773,666	**7,624,980**	-2%	(148,685)	8,464,743	8,744,234	9,096,649	9,336,691	Less power sales coupled with reduced demand charges.
6	Depreciation Expense	2,975,650	3,166,399	3,302,408	**3,673,019**	11%	370,611	3,992,586		4,828,639	5,015,474	Increasing level of utility plant investment.
7	Distribution								4,624,829			
8	Maintenance	1,778,516	1,862,557	1,592,004	**1,702,147**	7%	110,143	1,775,851	1,836,799	1,928,146	2,024,754	Right of way clearing and underground maintenance.
9	Station Expenses	75,808	78,610	108,337	**87,260**	-19%	(21,077)	88,921	91,962	96,661	101,639	
10	Communication Maintenance	343,968	472,946	394,443	**455,073**	15%	60,630	476,259	604,491	637,296	672,189	
11	Misc. Engineering Expenses	75,456	285,803	99,563	**166,107**	67%	66,544	149,022	137,300	145,550	154,419	Increasing efforts in planning and training costs
12	Consumer Accounts	898,198	1,000,006	897,838	**930,975**	4%	33,137	995,953	1,034,897	1,093,752	1,156,532	
13	General & Administration	2,312,783	1,904,375	1,858,369	**2,036,006**	10%	177,637	2,136,824	2,217,534	2,349,103	2,489,855	Full staffing: head accountant vacancy filled & budgeted addition of communications specialist.
14	Member Communications	162,272	214,271	138,915	**144,706**	4%	5,791	149,139	153,764	160,285	167,101	
15	Dues and Subscriptions	83,954	91,917	89,801	**102,495**	14%	12,694	178,007	385,661	401,087	417,131	PNGC membership in future years.
16	Software Licence Expenses	85,170	93,548	124,186	**127,912**	3%	3,726	131,749	135,702	141,130	146,775	
17	Director Fees & Expenses	161,251	175,615	107,935	**121,173**	12%	13,238	124,808	128,552	133,694	139,042	Assumes current medical plan costs
18	Proprerty & Damage Insurance	143,877	158,110	150,686	**160,206**	6%	9,521	165,012	169,963	176,761	183,832	
19	Legal	90,303	165,799	113,058	**86,176**	-24%	(26,881)	88,762	91,424	95,081	98,885	
20	General Plant Maintenance	21,150	134,629	145,055	**119,537**	-18%	(25,518)	123,153	126,876	132,024	137,384	
21	Outside Services	103,719	122,728	204,539	**160,675**	-21%	(43,864)	165,495	170,460	197,278	205,169	
22	Energy Savings											
23	BPA EEI funding	(346,603)	(393,270)	(283,937)	**(292,455)**	3%	(8,518)	(281,228)	(279,665)	(280,852)	(282,086)	
24	Energy Programs	719,926	1,136,818	869,404	**702,831**	-19%	(166,573)	726,894	759,958	795,626	833,194	
25	All Other Accounts	3,178,667	3,758,582	3,701,679	**3,797,075**	3%	95,396	4,036,241	4,379,568	4,635,197	4,923,534	Normal inflation factor.
26	Total Operating Expenses	$ 20,901,493	$ 22,882,324	$ 21,387,947	**$ 21,905,897**	2%	$ 517,950	$ 23,688,191	$ 25,514,309	$ 26,763,105	$ 27,921,514	
27	Fixed Charges											
28	Interest Expense	908,934	1,003,025	1,038,898	**1,372,978**	32%	334,080	1,403,153	1,774,917	1,716,330	1,644,262	Increase in RUS & CFC loans required for capital projects. Partially offset by RIC interest income (row 25).
29	Patronage Capital Credits											
30	Other CC & Pat Cap Allocation	67,853	56,472	56,051	**56,051**	0%	-	57,732	59,464	61,843	64,317	
31	Non-Operating Margins											
32	Island Network	(220,088)	-	-	**-**		-	-	-	-	-	New entity, Rock Island Communications, accounted for as a separate subsidiary.
33	Interest Income	32,130	208,165	152,289	**332,289**	118%	180,000	108,157	79,050	55,276	36,552	RIC payment of CFC interest (pass thru). Offset to interest expense above (row 20)
34	Other Income	23,458	21,933	13,619	**20,381**	50%	6,762	20,683	21,295	22,135	23,008	
35	Total Net Non-Operating Margins	$ (164,500)	$ 230,098	$ 165,908	**$ 352,670**	113%	$ 186,762	$ 128,840	$ 100,345	$ 77,411	$ 59,560	
36	Net Margin	$ 121,951	$ 1,098,363	$ 1,108,856	**$ 1,966,067**	77%	857,211	$ 2,802,534	$ 1,930,867	$ 2,447,168	$ 3,174,858	
37												
38	OPALCO TIER	1.13	1.92	1.89	**2.18**			2.53	2.06	2.39	2.89	
39	OPALCO Equity % of Total Cap	61.3%	52.7%	51.3%	**45.4%**			45.7%	47.3%	49.2%	51.4%	

Revenue Allocation



Budget Expense Trends





2016 Budget: Capital Projects

			RUS CWP DESCRIPTION	A. Actual 12/31/2012	B. Actual 12/31/2013	C. Actual 12/31/2014	D. Budget 2015	E. Projected Year End 2015	F. **Proposed Budget 2016**	G. Forecast 2017	H. Forecast 2018	I. Forecast 2019	J. Forecast 2020
1	DISTRIBUTION												
2	100		New Services	$ 148,472	$ 125,675	$ 256,450	$ 164,800	$ 160,877	**$ 170,000**	$ 176,000	$ 182,000	$ 188,000	$ 194,000
3	200		New Tie Lines	173,133	319,404	341,347	130,000	95,309	**-**	100,000	-	-	-
4	300		Conversions and Line Changes	640,135	692,238	1,194,755	968,000	770,223	**975,000**	1,132,500	893,200	1,086,750	828,000
5	400		New Substations, switching station, metering point, etc	-	-	-	-	-	**-**	-	-	-	-
6	500		Substation, Switching Station, Metering Point Changes	9,107	123,386	23,034	-	145	**-**	310,000	95,000	-	145,000
7	600		Miscellaneous Distribution Equipment										
8		601	Transformers & Meters	342,325	372,396	575,840	379,300	507,750	**500,000**	515,000	531,000	547,000	564,000
9		602	Sets of Service Wires to increase C	-	-	-	-	-	**-**	-	-	-	-
10		603	Sectionalizing Equipment	57,055	68,473	401,127	140,000	129,068	**255,000**	240,000	288,000	240,000	225,000
11		604	Regulators	-	156,491	131,410	-	109,235	**325,000**	-	-	-	-
12		605	Capacitors	-	-	-	-	-	**-**	-	-	-	-
13		606	Ordinary Replacements	119,430	236,490	179,366	247,200	224,827	**275,000**	129,000	133,000	137,000	142,000
14		608	Underground Dist. Cable Replacen	657,710	924,947	3,202,174	1,168,020	2,217,591	**2,285,000**	1,218,000	1,255,000	1,293,000	1,332,000
15	700		Other Distribution Items										
16		701	Engineering Fees	-	-	-	-	-	**-**	-	-	-	-
17		701.1	Environmental Consultant (asset portion only)				75,000						
18		701.2	AFUDC - Interest Capitalization				192,570						
19		704	LMS & SCADA	118,155	52,327	1,805	-	29,000	**45,000**	160,000	-	-	-
20		705	AMR (not including meters)	27,454	-	-	-	-	**-**	-	-	-	-
21		706	Communications										
22		706.0	Island Network	94,107	322,418	349,692	-	-	**-**	-	-	-	-
23		706.1	Fiber/Microwave Infrastructure	-	474,460	1,747,051	1,930,000	2,148,514	**2,400,000**	730,000	50,000	52,000	54,000
24	TRANSMISSION												
25	800		New Tie Line	-	-	-	-	-	**-**	-	-	-	-
26	900		New Substations, switching station, metering point, etc	-	-	11,321	-	337	**600,000**	950,000	-	-	-
27	1000		Line and Station Changes	440,705	365,876	257,537	3,000,000	4,367,563	**3,025,000**	7,413,000	529,000	533,000	537,000
28	1100		Other Transmission	-	-	-	-	-	**-**	-	-	-	-
29	GENERATION												
30	1200		Generation	-	-	-	-	-	**-**	-	-	-	-
31	OTHER												
32	1300		Facilities	330,178	249,280	62,112	150,000	394,055	**124,000**	62,000	64,000	66,000	68,000
33	1400		Acquisitions	-	-	-	-	-					
34	1500		All Other										
35		1501	Transportation/Equipment/Tools/R	313,695	448,241	426,919	565,380	273,112	**463,000**	338,000	213,000	220,000	227,000
36		1502	Office Equipment/Furniture/Etc.		4,601	7,938	51,500	54,465	**30,000**	31,000	32,000	33,000	34,000
37		1503	Computer/Servers/Software		358,351	212,073	206,500	253,703	**262,000**	270,000	279,000	288,000	297,000
38		1504	Community Solar				50,000	-	**300,000**				
39	1600		Minor Projects	635,294	549,042	212,306	90,000	92,068	**90,000**	93,000	96,000	99,000	102,000
40			**RUS CWP SUBTOTAL**	4,106,955	5,844,096	9,594,257	9,508,270	11,827,843	**12,124,000**	13,867,500	4,640,200	4,782,750	4,749,000
41	**CONTRIBUTION IN AID OF CONSTRUCTION (CIAC)**												
42			New Services, Transformers, Meters	(293,000)	(293,000)	(293,000)	(252,434)	(308,901)	**(318,000)**	(328,000)	(338,000)	(348,000)	(358,000)
43			Community Solar Member Contributions						**(300,000)**				
44			**RUS CWP NET TOTAL**	3,813,955	5,551,096	9,301,257	9,255,836	11,518,942	**11,506,000**	13,539,500	4,302,200	4,434,750	4,391,000

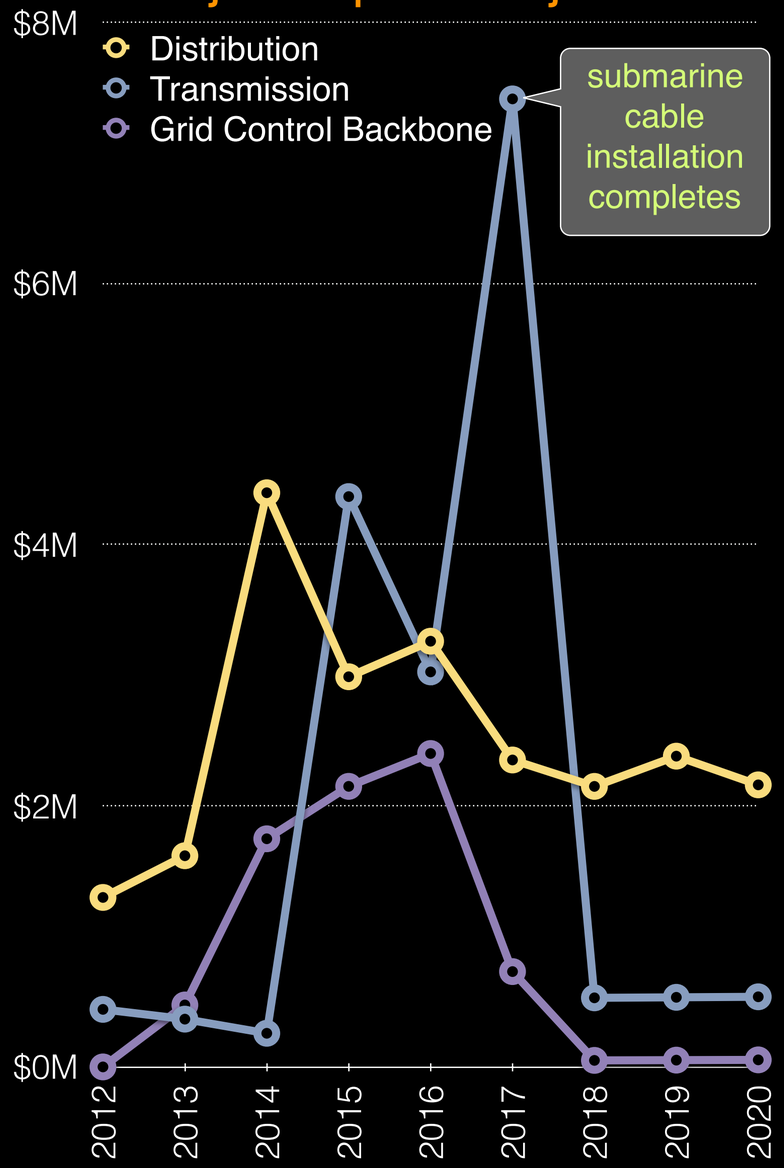
Distribution

Grid Control Backbone

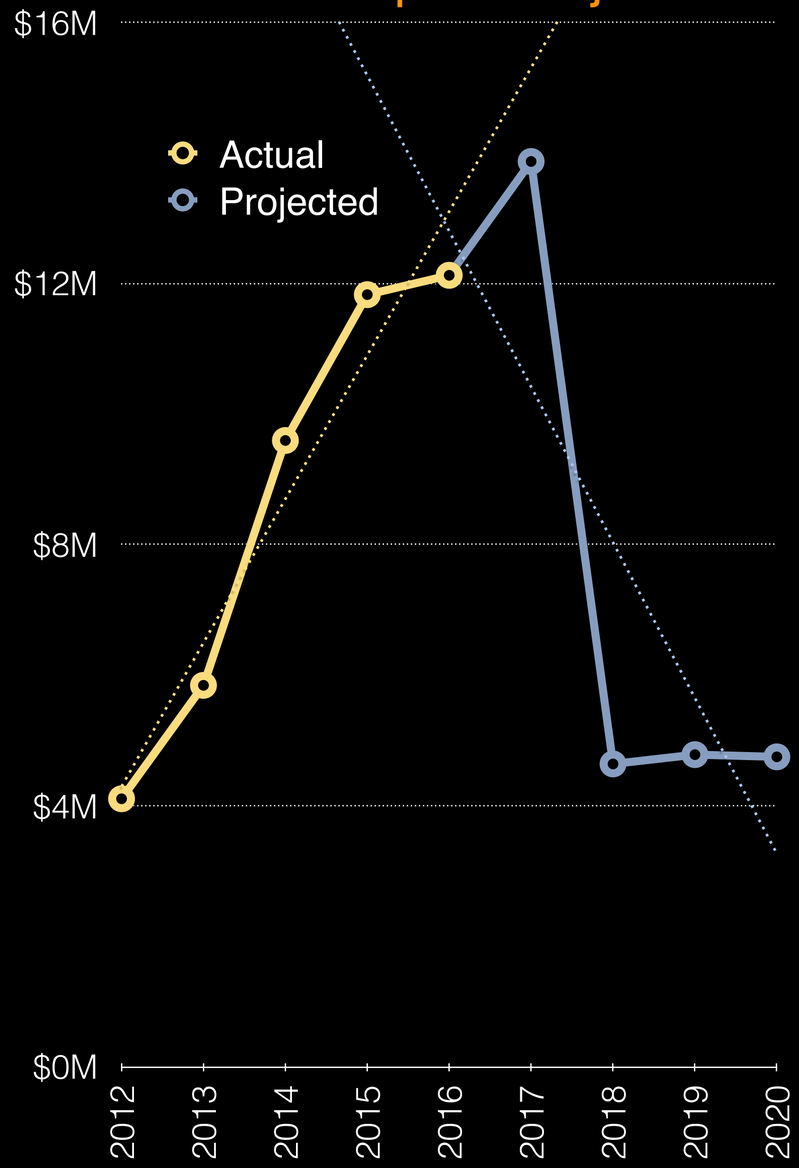
Submarine Cables

2016 Budget: Capital Projects

Major Capital Projects



Total Capital Projects

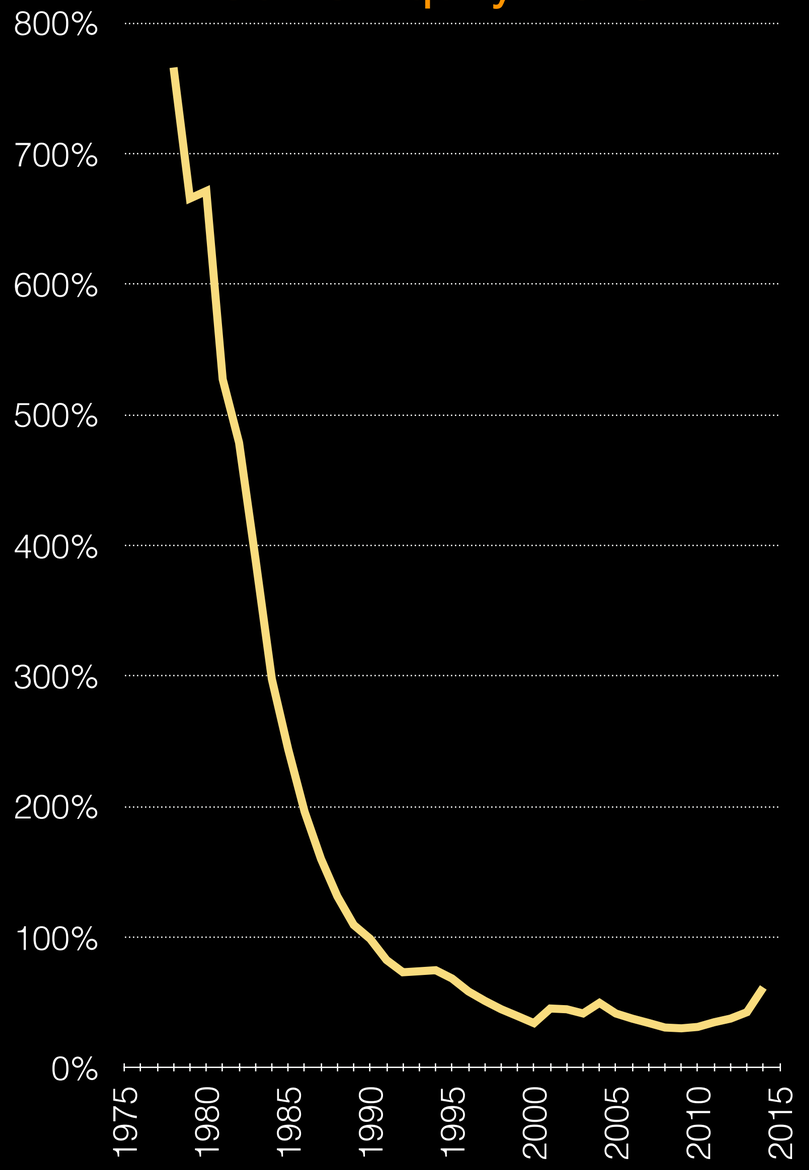


Headline

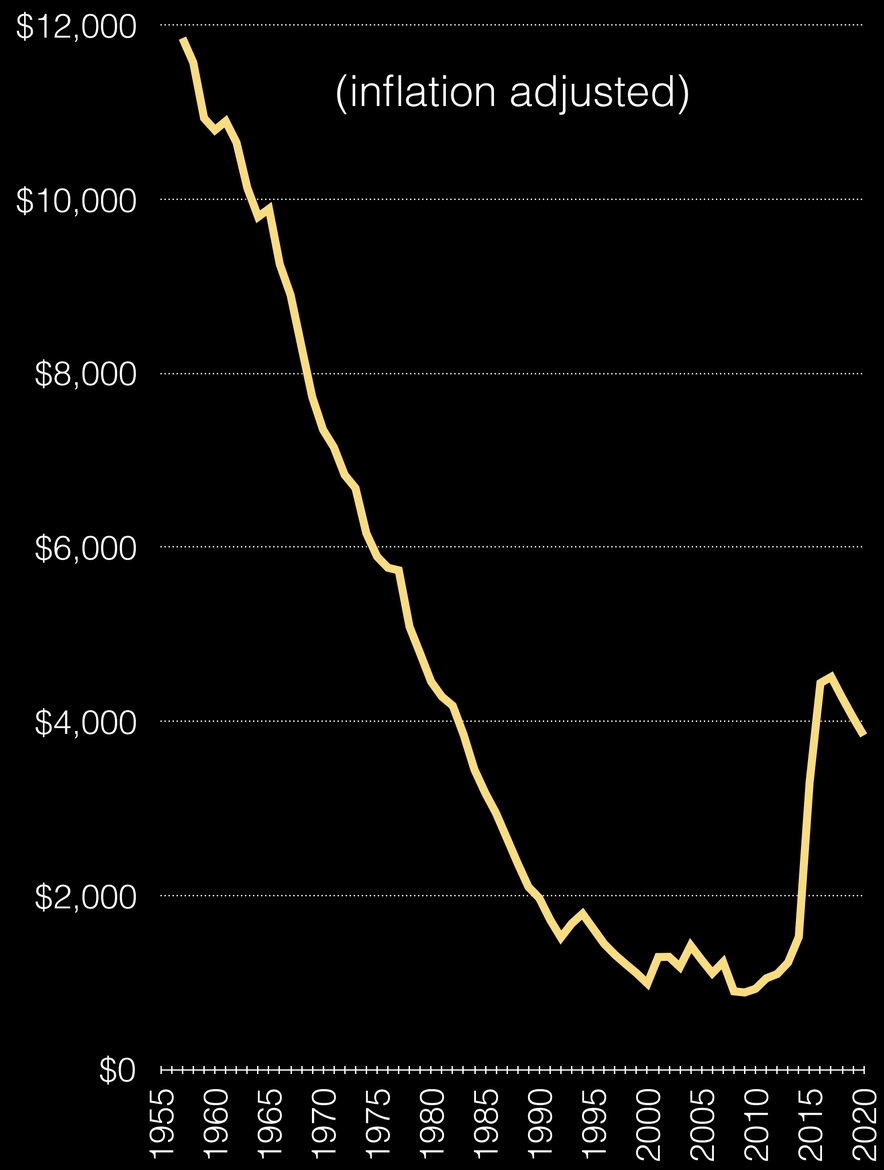
- Transmission: peak is Lopez San Juan submarine cable
- Distribution: Normal under-grounding to improve reliability
- Grid Control Backbone: Expansion to improve
  - reliability
  - field communications
  - preparing for intermittent local renewable energy resources

2016 Budget: Debt Analysis

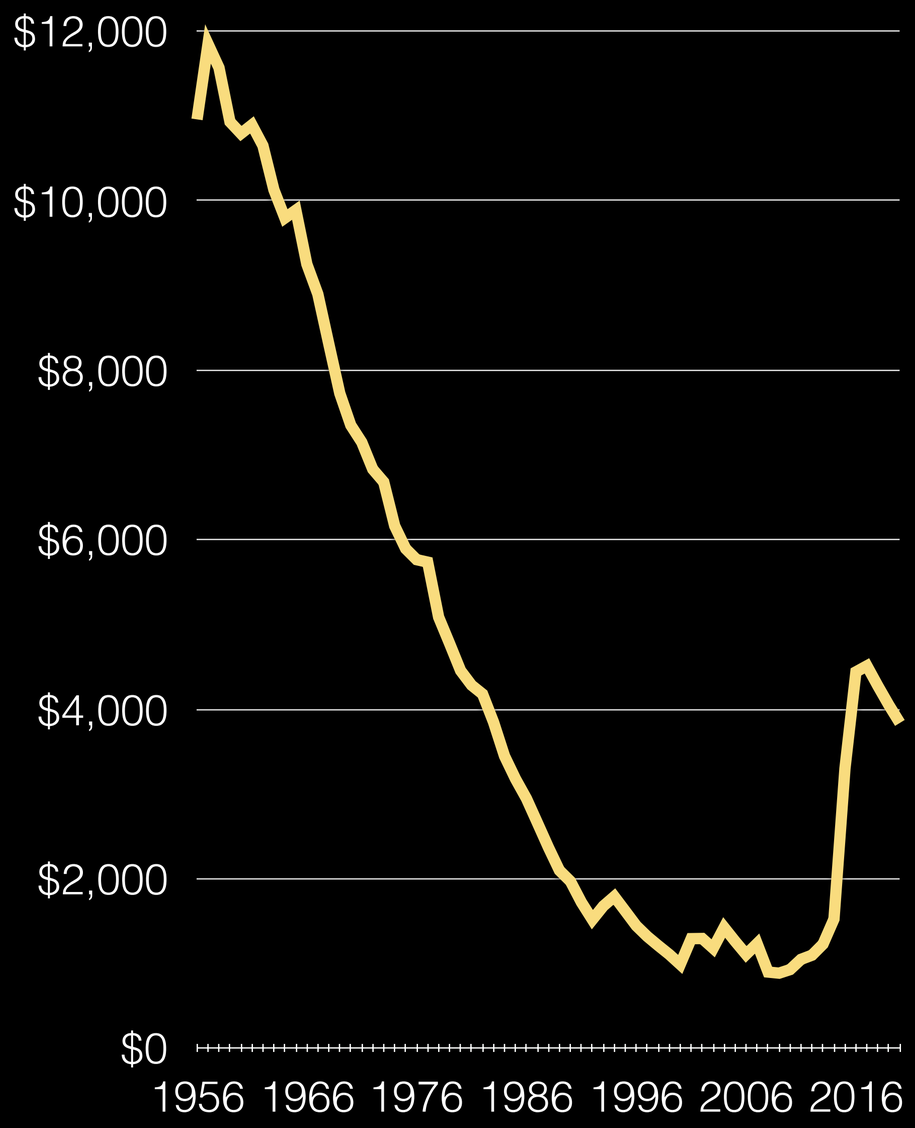
Debt to Equity Ratio



Debt Per Meter Connection

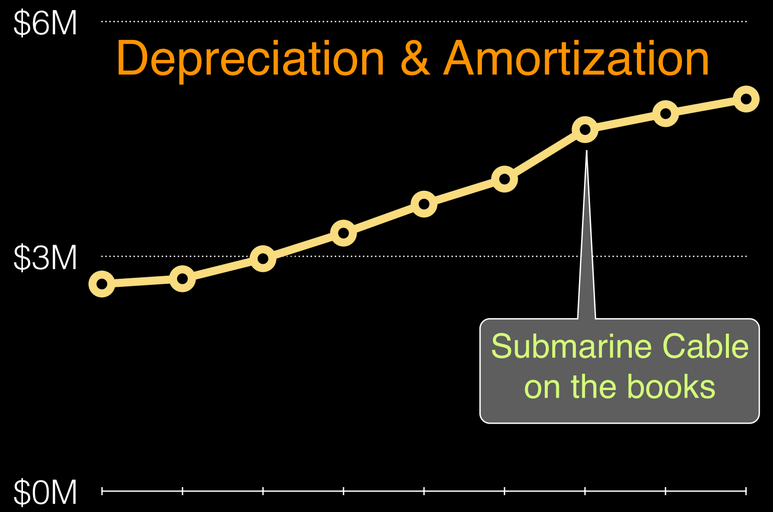


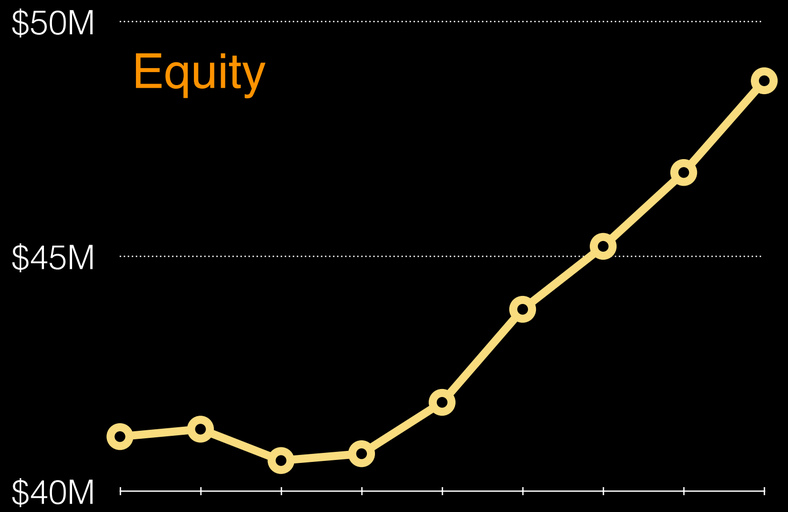
OPALCO Debt Per Meter Connection

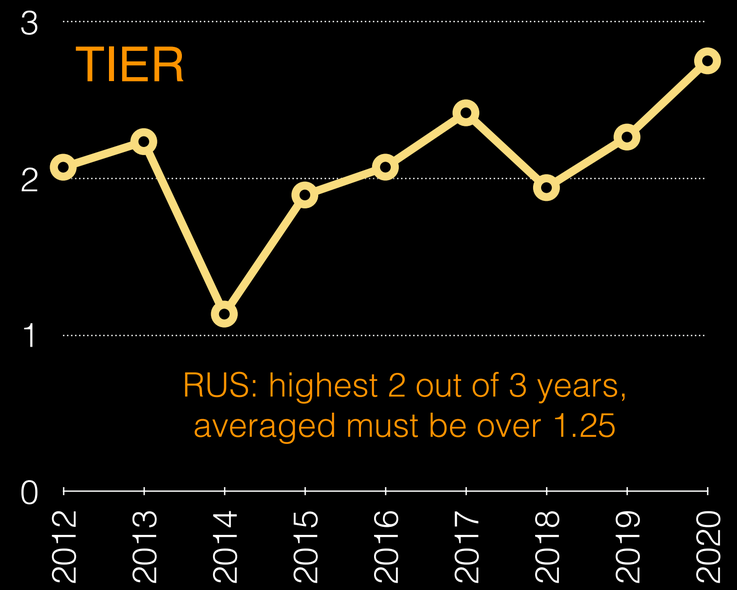


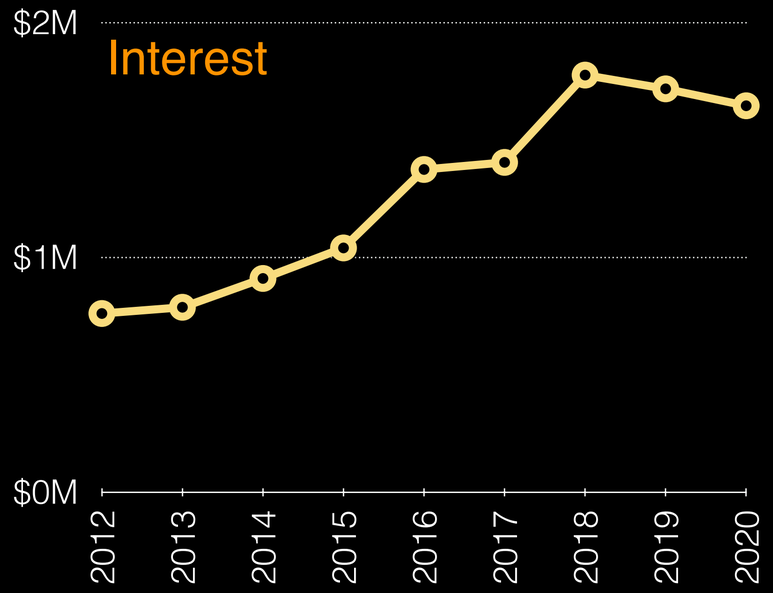
(inflation adjusted)

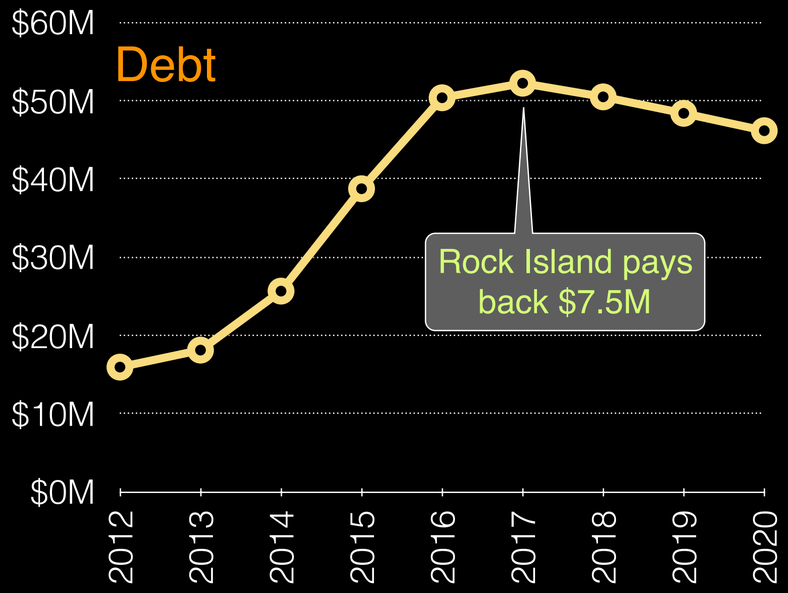
2016 Budget: Financial Metrics

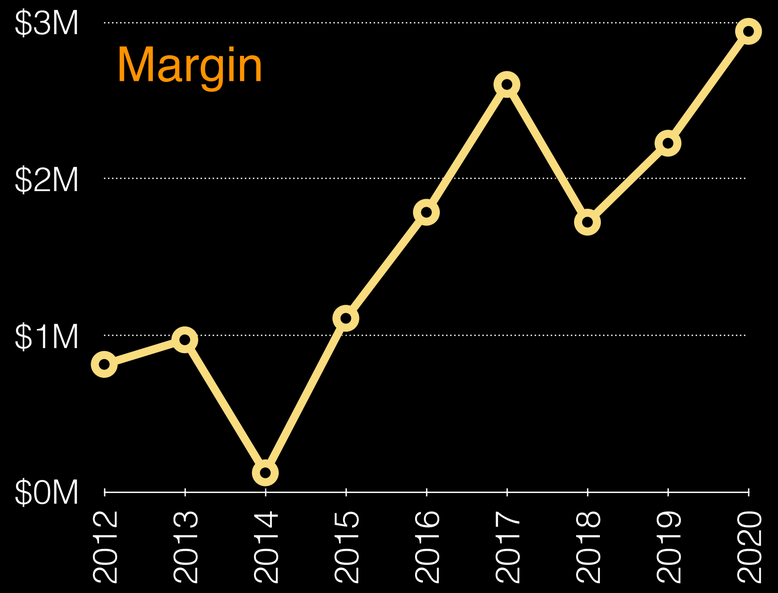






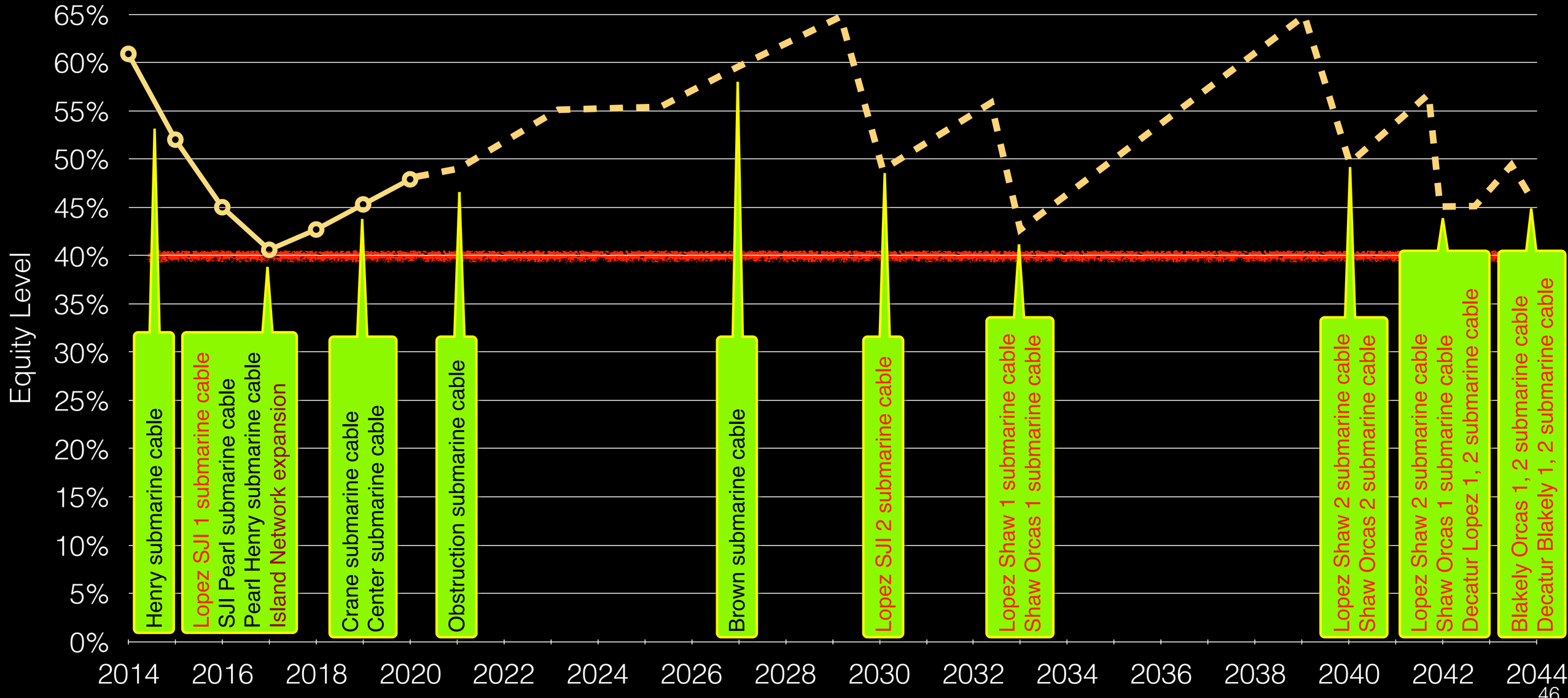






Submarine Cable Replacements: Managing Equity Level

Note: Schematic to illustrate equity planning process



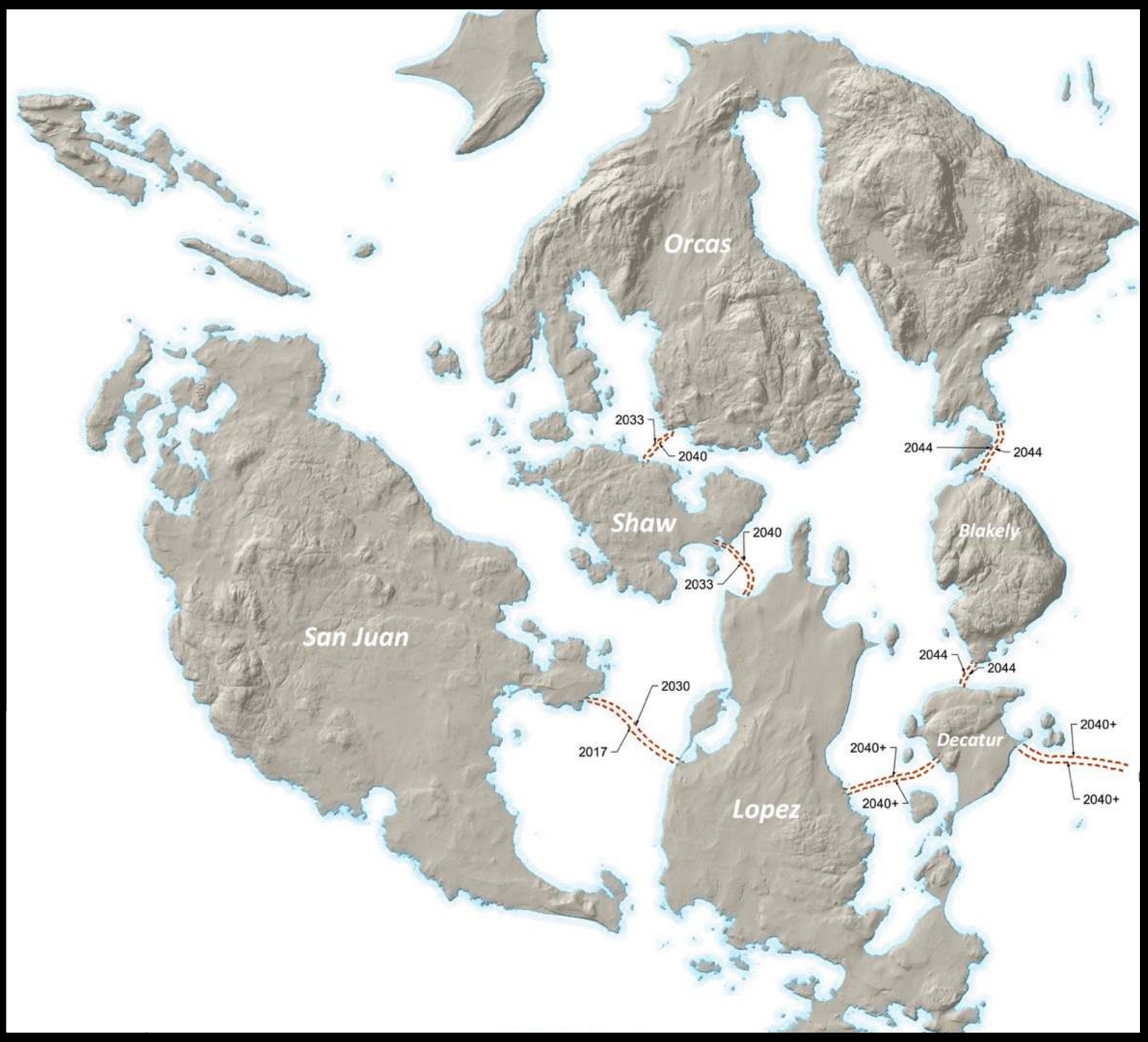
How does OPALCO compare to our mainland counterparts?

OPALCO's 20 island service area and infrastructure is the most complicated in the nation.

Unlike the mainland, much of the electricity transmission and distribution is via very expensive submarine cables - over 30 miles, costing from $1,000,000 to $5,600,000 per mile.

Lopez - San Juan submarine 2017 replacement cable is estimated to cost at least $15,000,000 for just under 3 miles of cable.

Submarine Transmission Cables



Notes

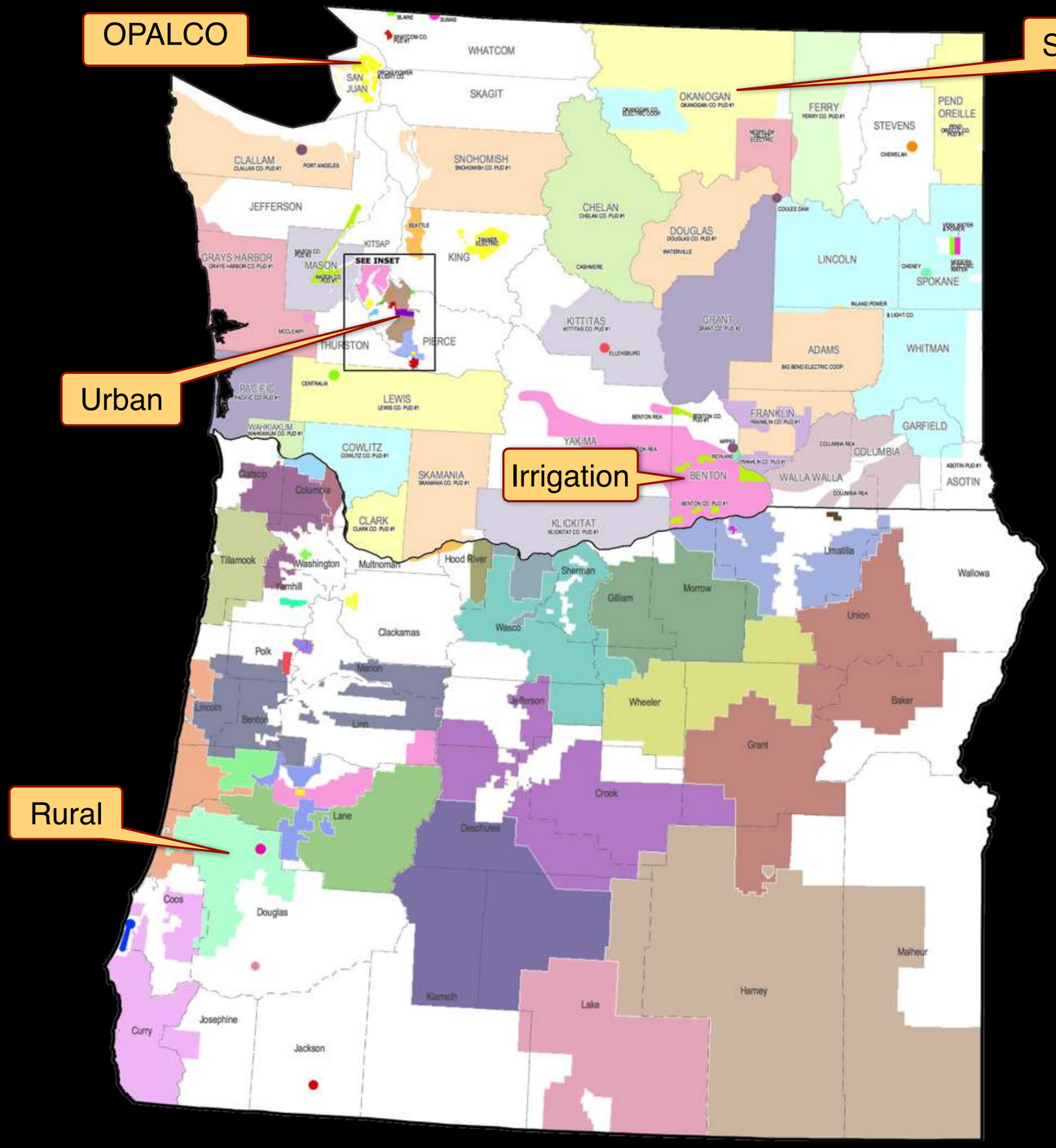
- Decatur-Blakely cable
  - Deferred from 2018 to 2044, due to upgraded feeder through Moran State Park
- Lopez-Decatur cable
  - Currently rented from BPA
  - Unneeded due to upcoming 69KV tap
- Based on 40 year life of cable
  - Subject to ROV inspection after 20 years of life
  - Installing cathodic protection to extend life additional 10 - 20 years for less than 10% of cost
- Per board directive, transmission submarine crossings shall be redundant

Despite our complex 20 Island environment the OPALCO team outperforms our mainland counterparts by working smarter and

Doing More With Less

OPALCO's 20 island service area and infrastructure is the most complicated in the nation.

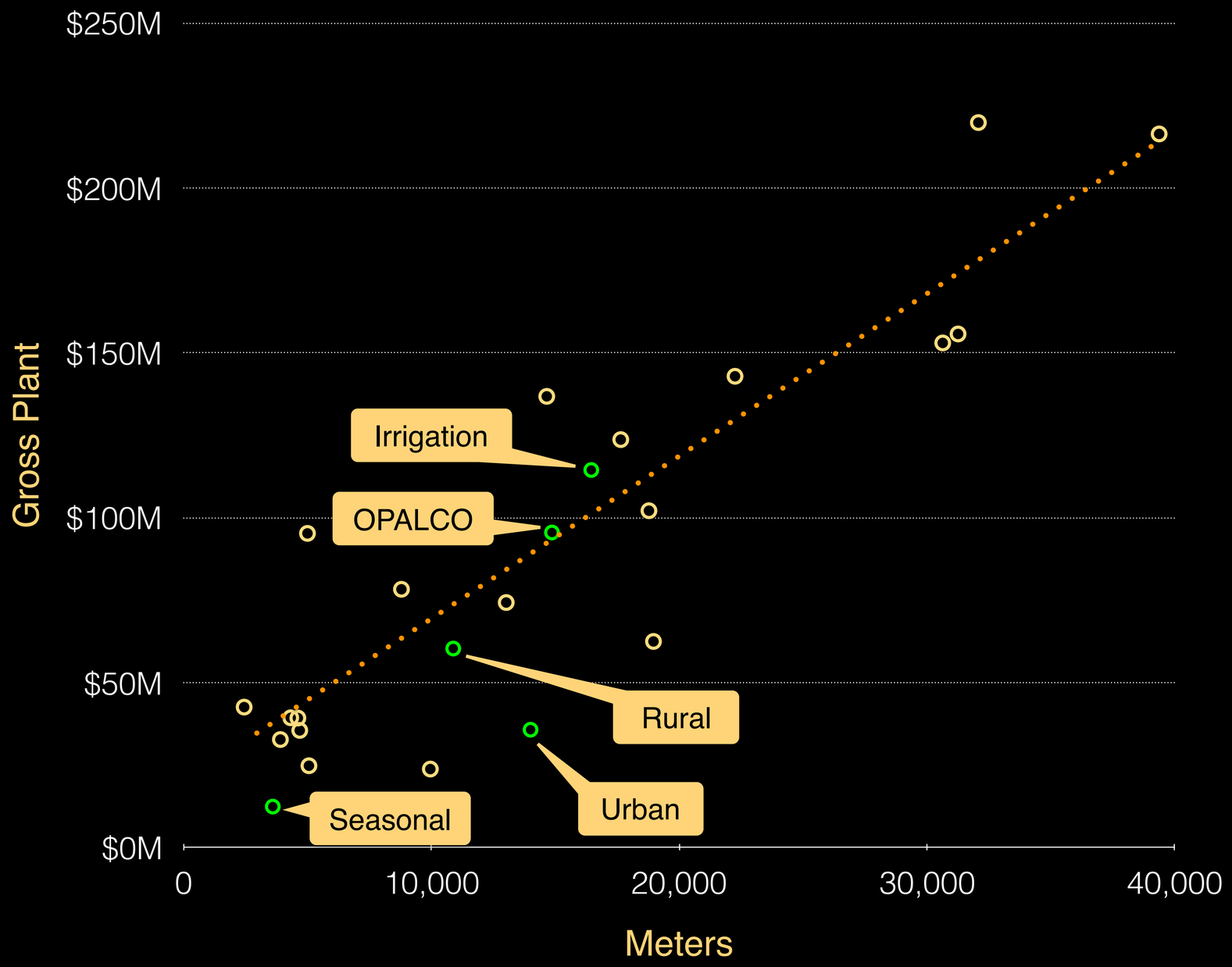
To track how we are doing, we review annual comparable performance metrics, which supports our prudent use of resources.



Co-Op	State	Meters	Gross Plant	Revenue
Harney Electric Co-op	OR	2,439	42,560,012	11,504,940
Okanogan	WA	3,595	12,381,448	5,276,715
Columbia Basin Electric Co-op	OR	3,902	32,725,403	8,427,804
West Oregon Electric Co-op	OR	4,319	39,321,659	10,391,219
Tanner	WA	4,607	39,244,021	10,534,157
Wasco Electric Co-op	OR	4,683	35,490,516	10,741,905
Columbia	WA	4,995	95,246,582	27,273,721
Blachy-Lane Electric Cooperative	OR	5,054	24,779,937	12,526,917
Big Bend	WA	8,788	78,290,006	32,898,321
Lakeview	WA	9,954	23,771,435	24,417,415
Douglas Electric Co-op	OR	10,879	60,318,538	14,525,467
Lane Electric Cooperative	OR	13,017	74,277,630	22,618,555
Elmhurst	WA	14,000	35,704,067	15,539,686
Umatilla Electric Co-op	OR	14,653	136,808,996	55,356,450
OPALCO	WA	14,864	95,522,556	22,682,062
Benton	WA	16,451	114,470,192	42,146,216
Coos-Curry Electric Co-op	OR	17,640	123,692,118	31,372,324
Midstate Electric Co-op	OR	18,778	102,125,835	29,898,832
Salem Electric	OR	18,961	62,475,912	26,155,331
Consumers Power, Inc.	OR	22,252	142,898,633	33,344,736
Oregon Trail Electric Consumers Co-op	OR	30,636	153,010,935	47,181,374
Peninsula Light Co	WA	31,255	155,732,732	49,763,161
Central Electric Co-op	OR	32,075	219,845,924	55,425,698
Inland Power and Light Co	WA	39,371	216,397,695	75,425,532

Source: 2014 RUS Form 7 and IRS Form 990 tax filings

Regional Co-Op Comparison: Meters & Gross Plant

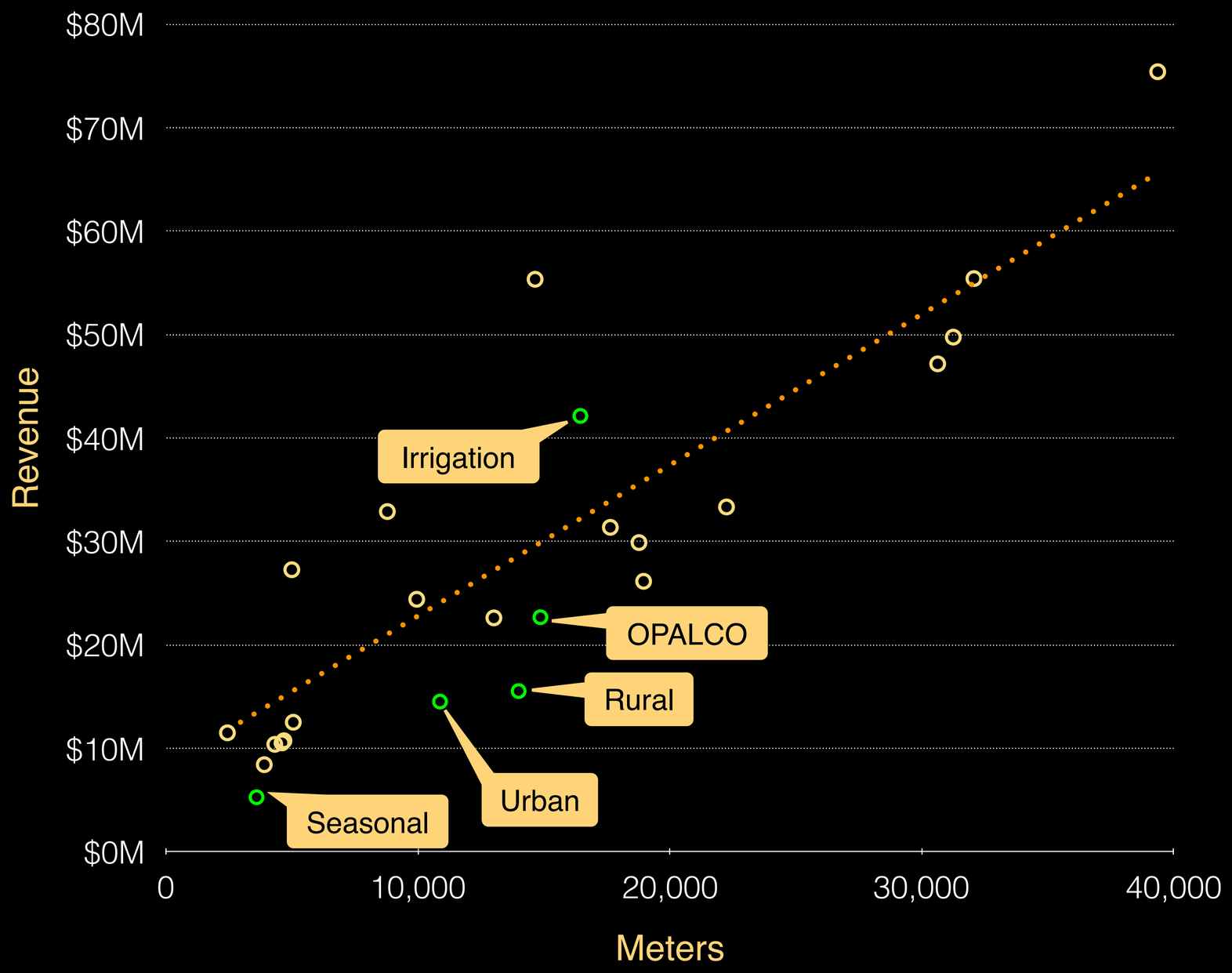


Notes

Serving 20 Islands with multi-island substations and distributed aerial, buried and submarine infrastructure is much more expensive than mainland counterparts

- Yet, OPALCO plant expense is in-line with mainland counterpart

Regional Co-Op Comparison: Meters & Revenue

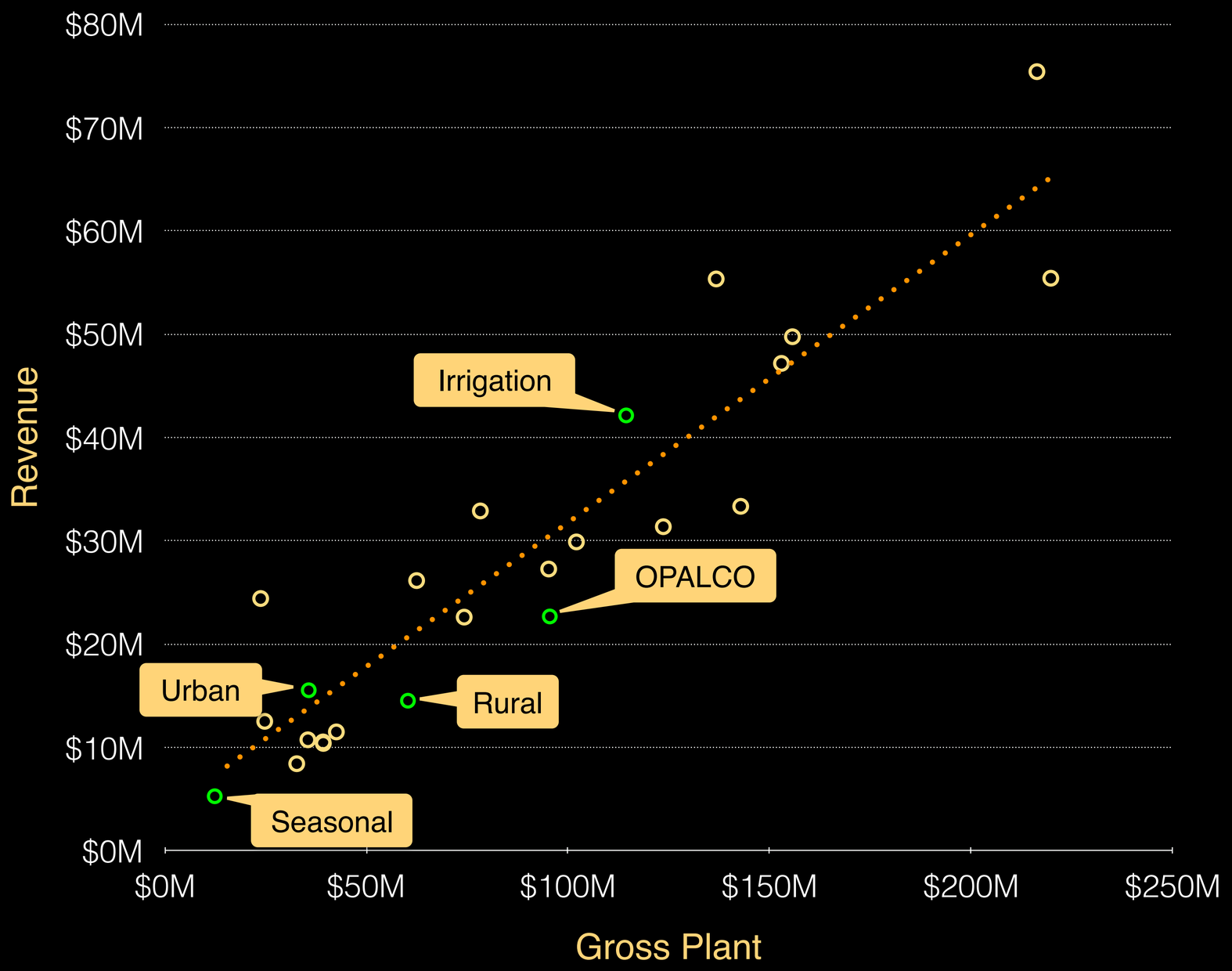


Notes

Despite the challenges and costs of delivering electricity to 20 Islands

- OPALCO billing revenue and member charges are below our mainland counterparts
- OPALCO members receive more value for their services

Regional Co-Op Comparison: Gross Plant & Revenue

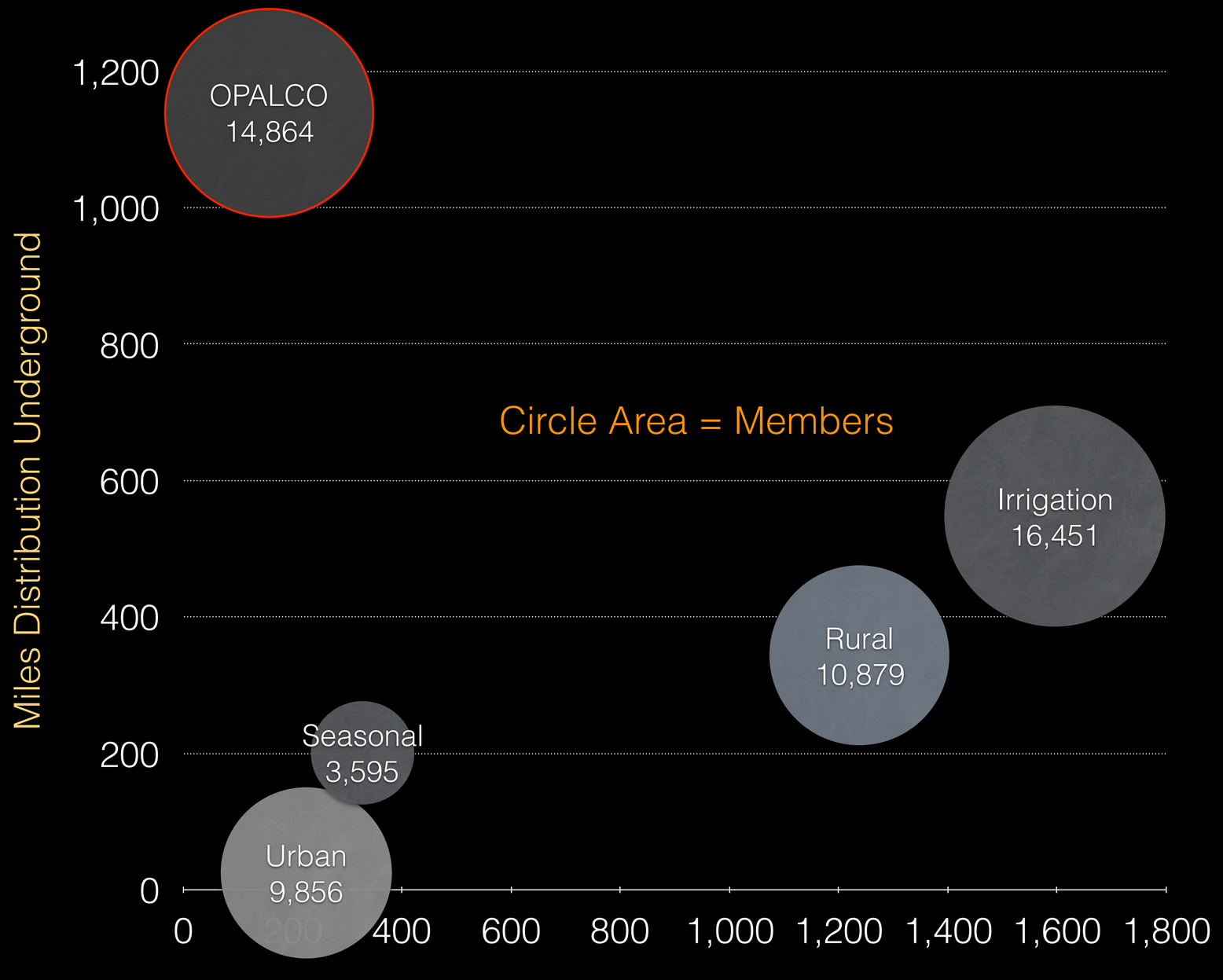


Notes

Despite the challenges and costs of delivering electricity to 20 Islands

- OPALCO Gross Plant is more expensive, but our billing revenue and member charges are below our mainland counterparts
- OPALCO members receive more value for their services

Distribution: Overhead versus Underground Cable

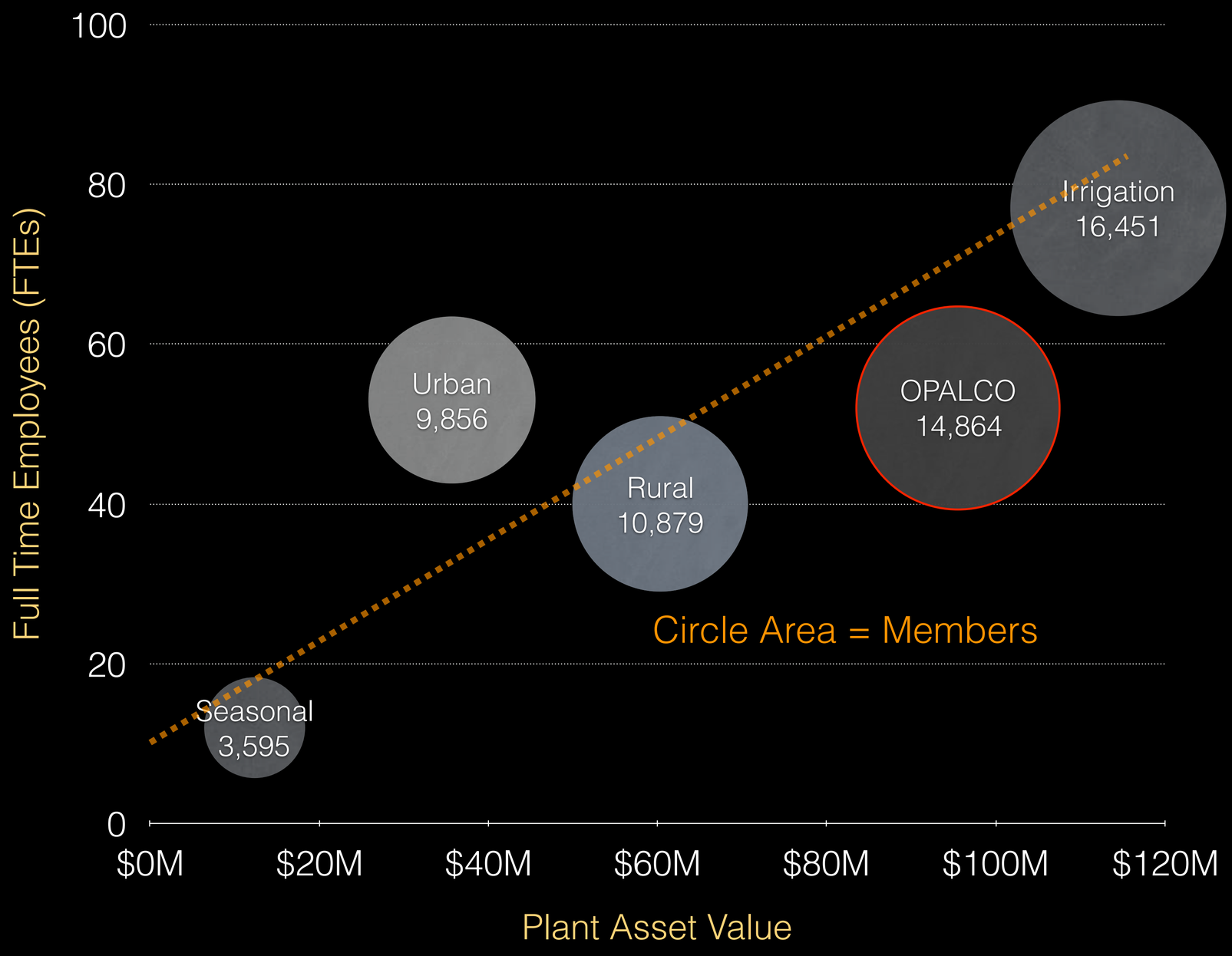


Notes

Serving 20 Islands with storm-hardened infrastructure requires very expensive buried distribution cable for comparable reliability

- ”Rural 1” service area 200 times larger than OPALCO
- “Seasonal” territory size similar to OPALCO, with concentrated neighborhoods rather than our scattered rural population

Distribution: FTE and Plant Cost

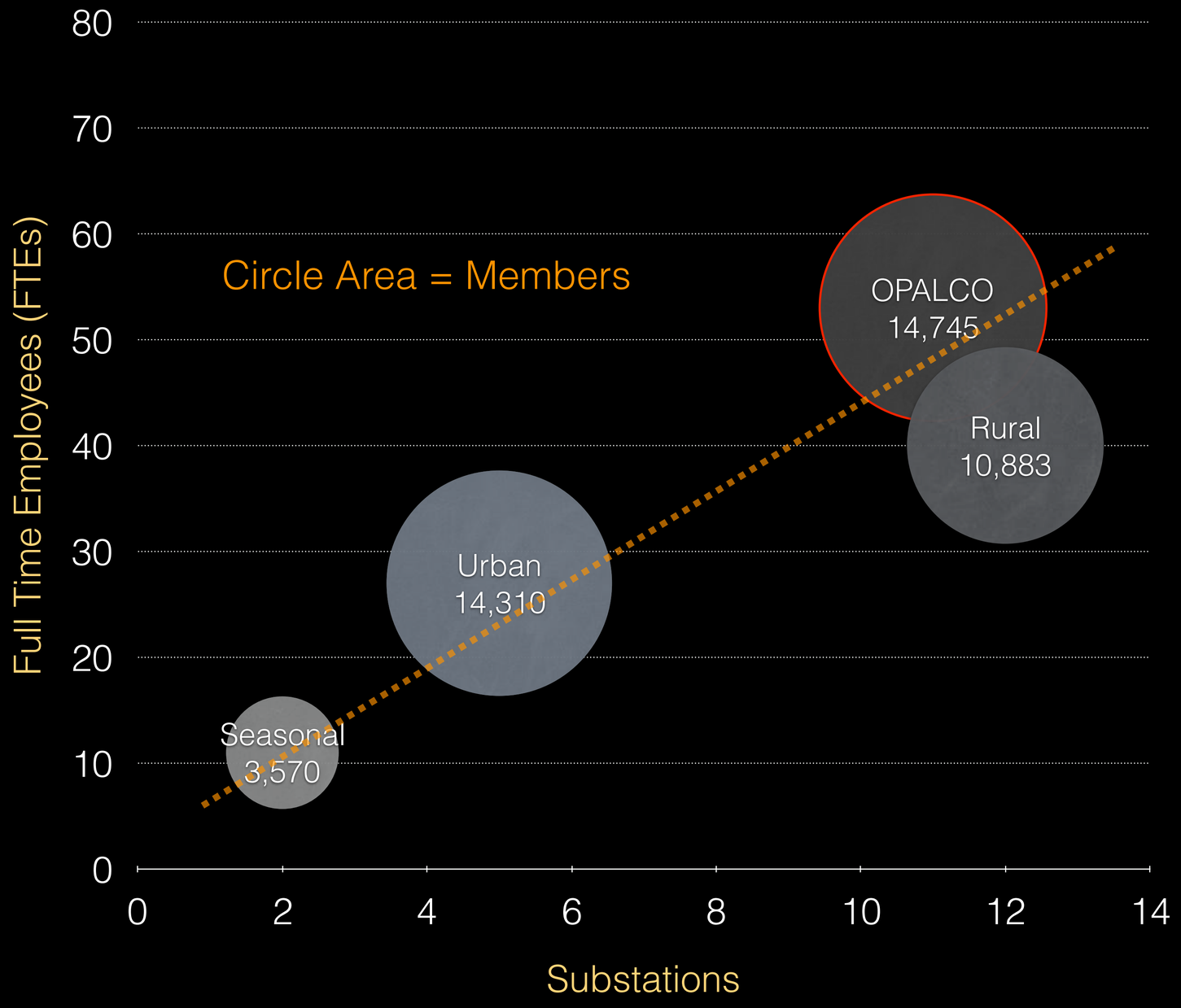


Notes

Our 20 island distributed infrastructure is much more complex to manage and maintain

- Yet OPALCO FTE's are below mainland co-ops

Distribution: FTE and Substations

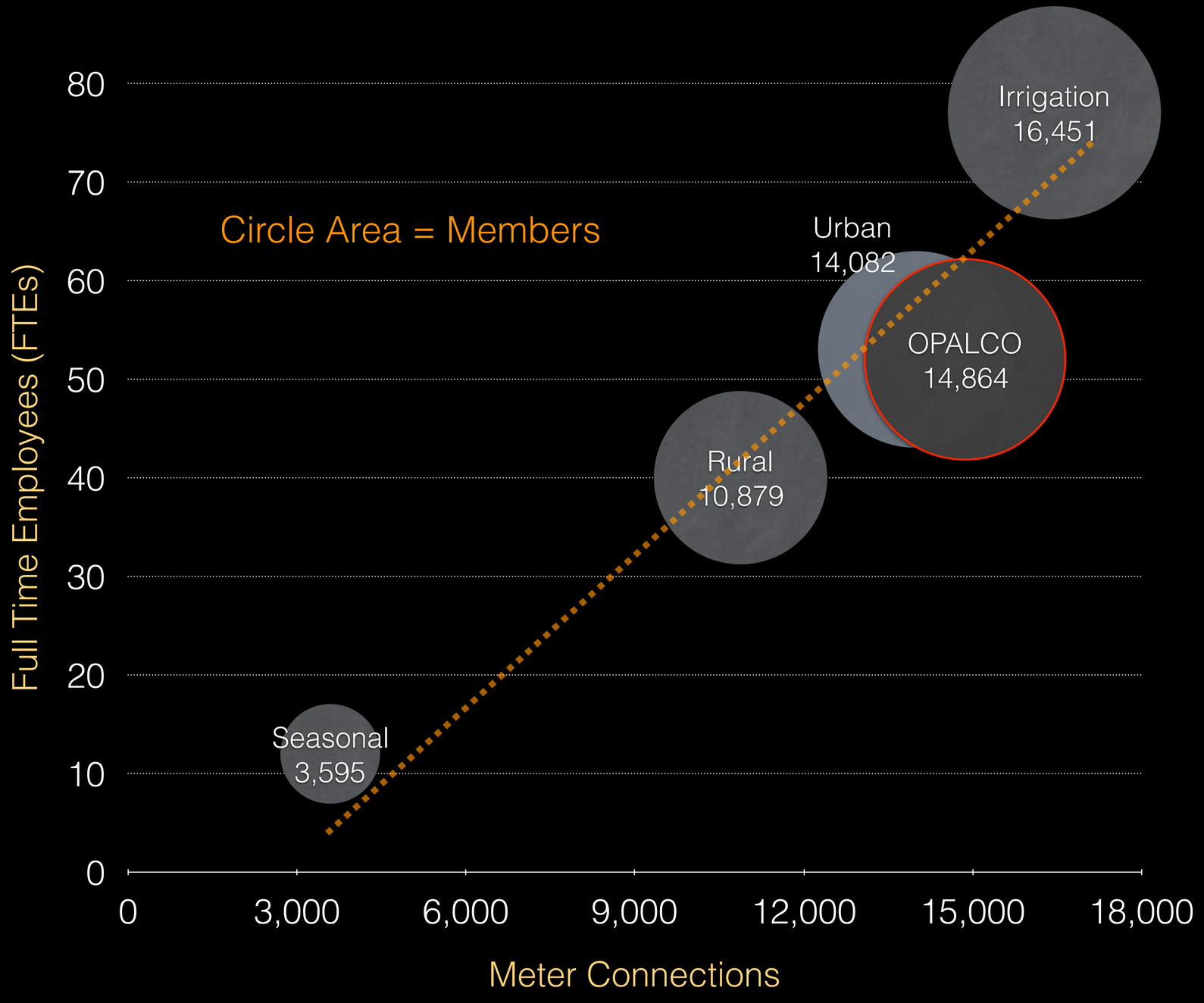


Notes

Serving 20 Islands's with distributed infrastructure requires more substations to manage

- Yet OPALCO FTE's are in-line with mainland co-ops

Distribution: FTE and Members

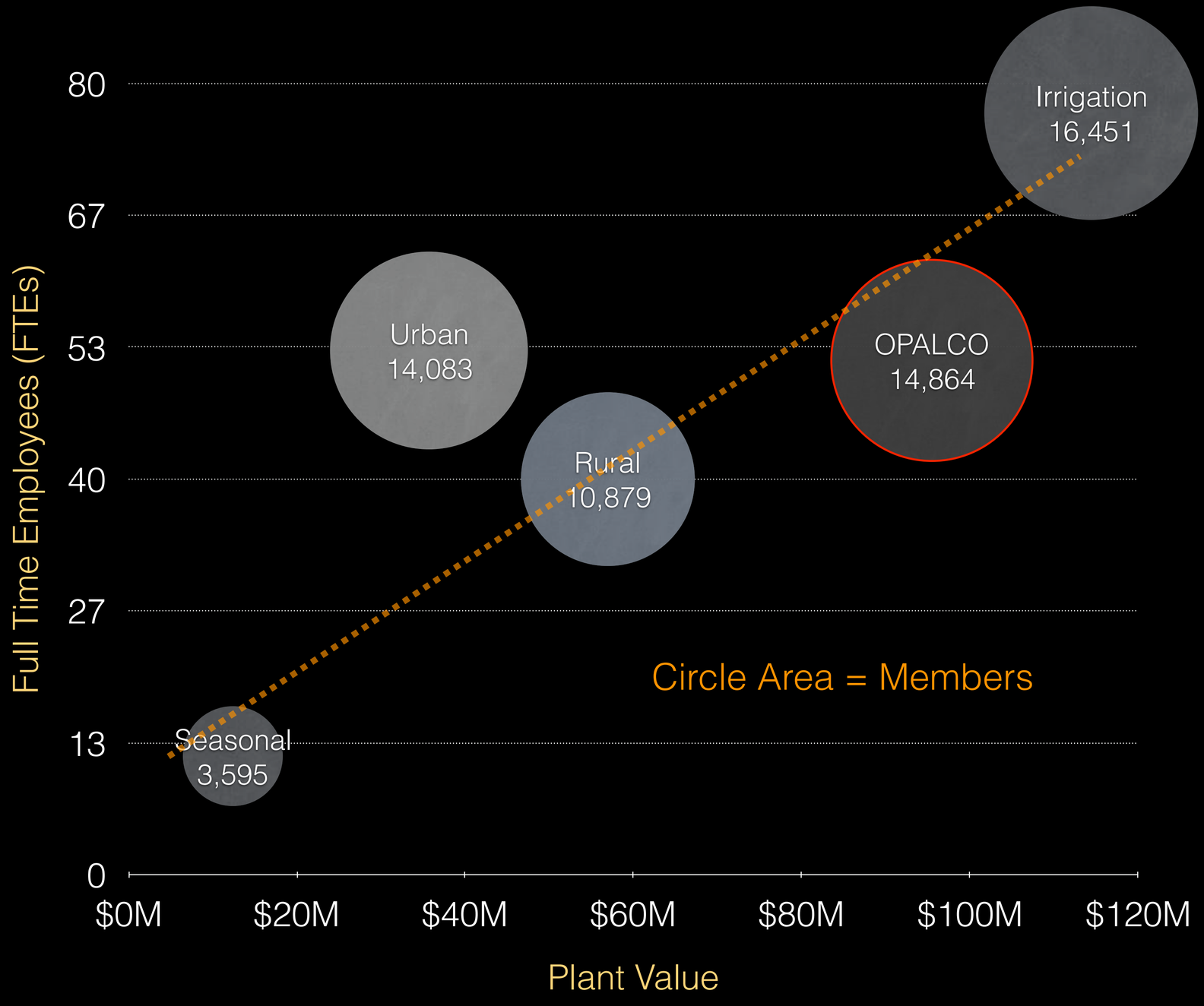


Notes

Our 20 island distributed membership requires more functional overlap to handle member needs in a timely way

- Yet OPALCO FTE's are below with mainland co-ops

Distribution: FTE and Plant

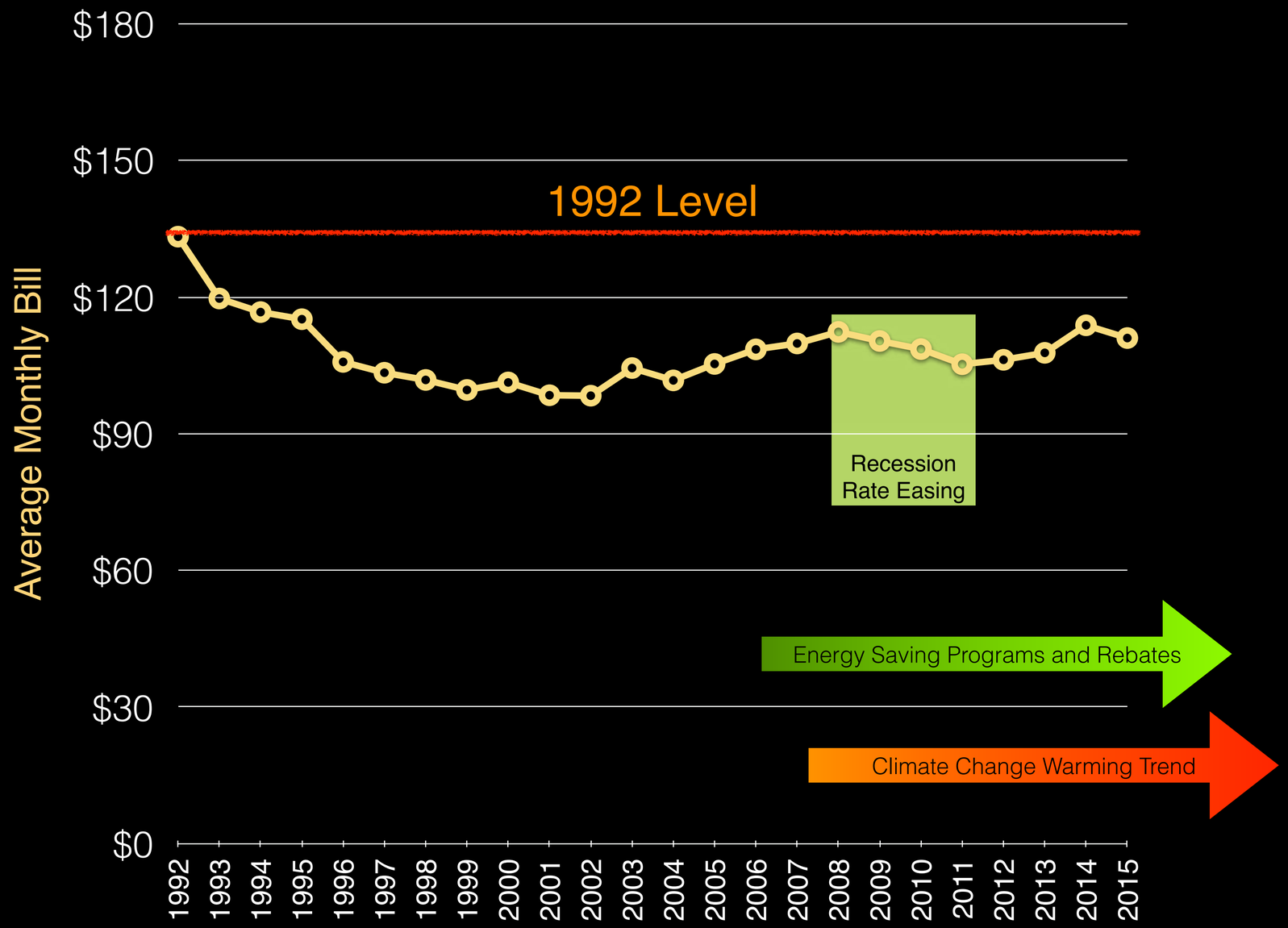


Notes

Serving 20 Island's distributed isolated geographic area requires much more complex and expensive plant

- Yet OPALCO manages that plant with less employees than the mainland

History of 1,000 kWh Monthly Bill: Inflation Adjusted



Headline

- OPALCO 2015 rates are lower than they were 23 years ago
- Rate has decreased an average of -.29% per year, 1992 through 2015

Notes

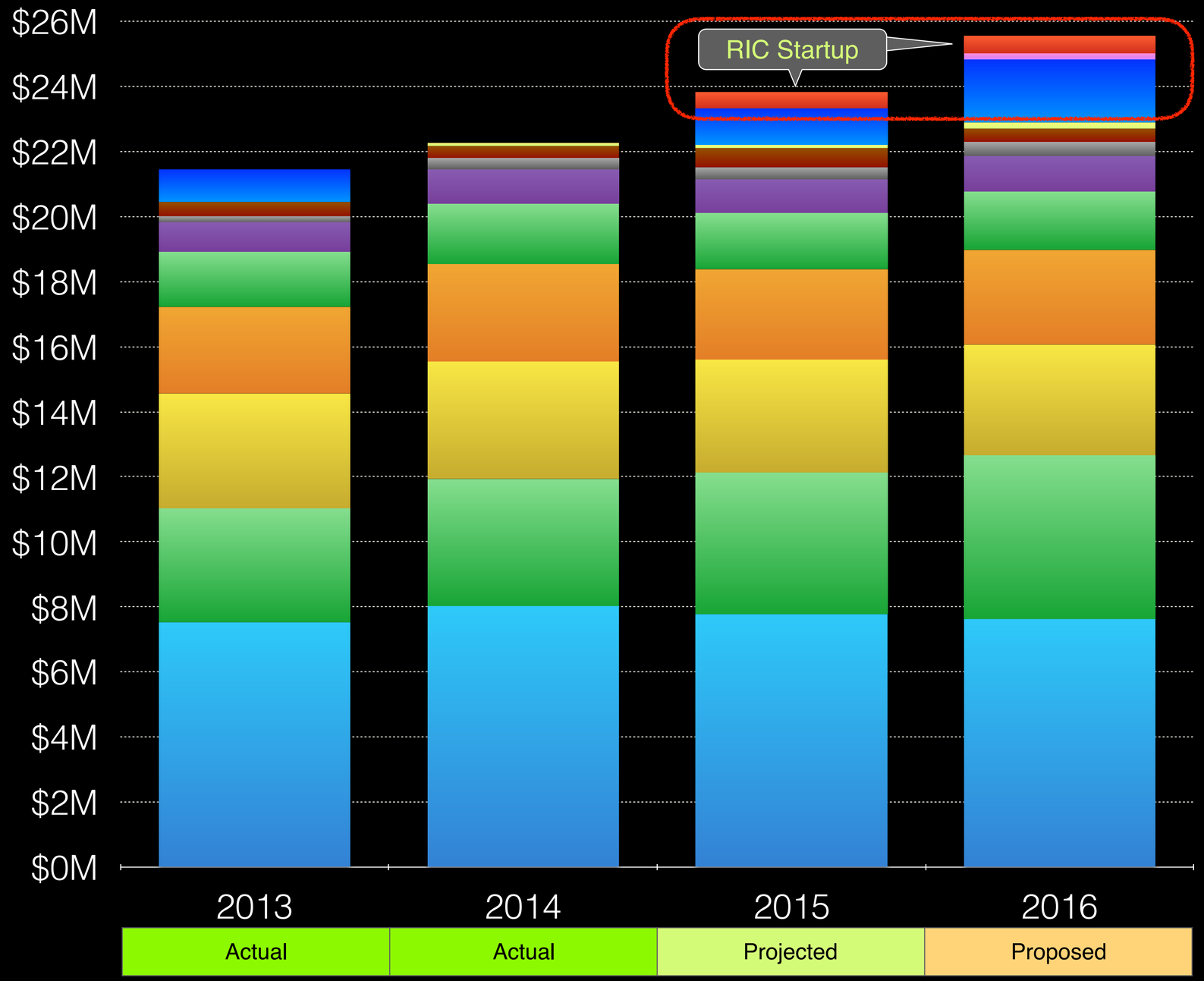
- 1992 through 2015, Residential
- Historically, average OPALCO member usage has been 1,000 kWh/month
- Monthly bill includes all Facility, Usage and Demand Charges.
- Rate increases minimized during 2008 - 2011 recession and after effects, to ease economic impact on county.

Source: OPALCO

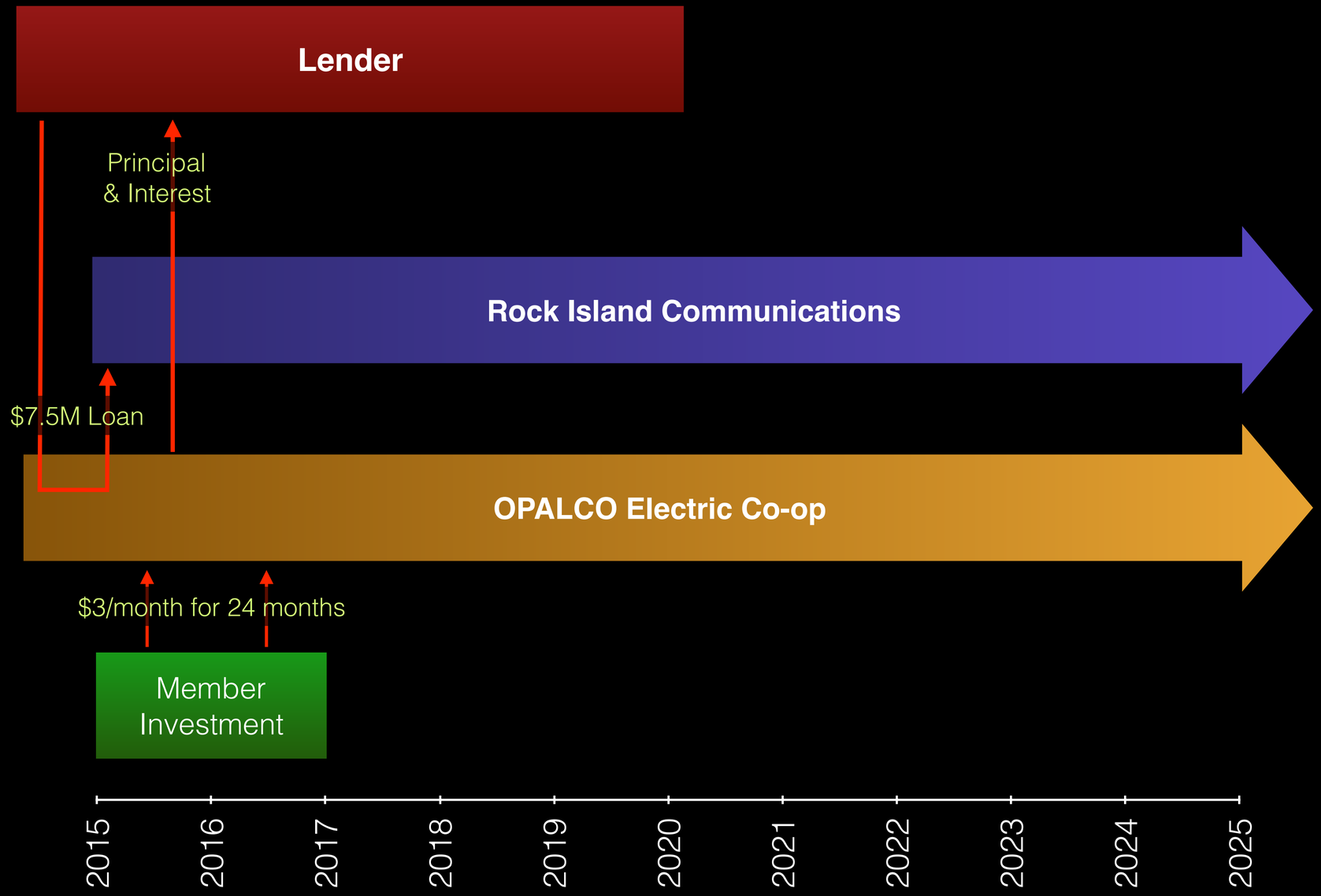
Discussion

Rock Island

Revenue Allocation



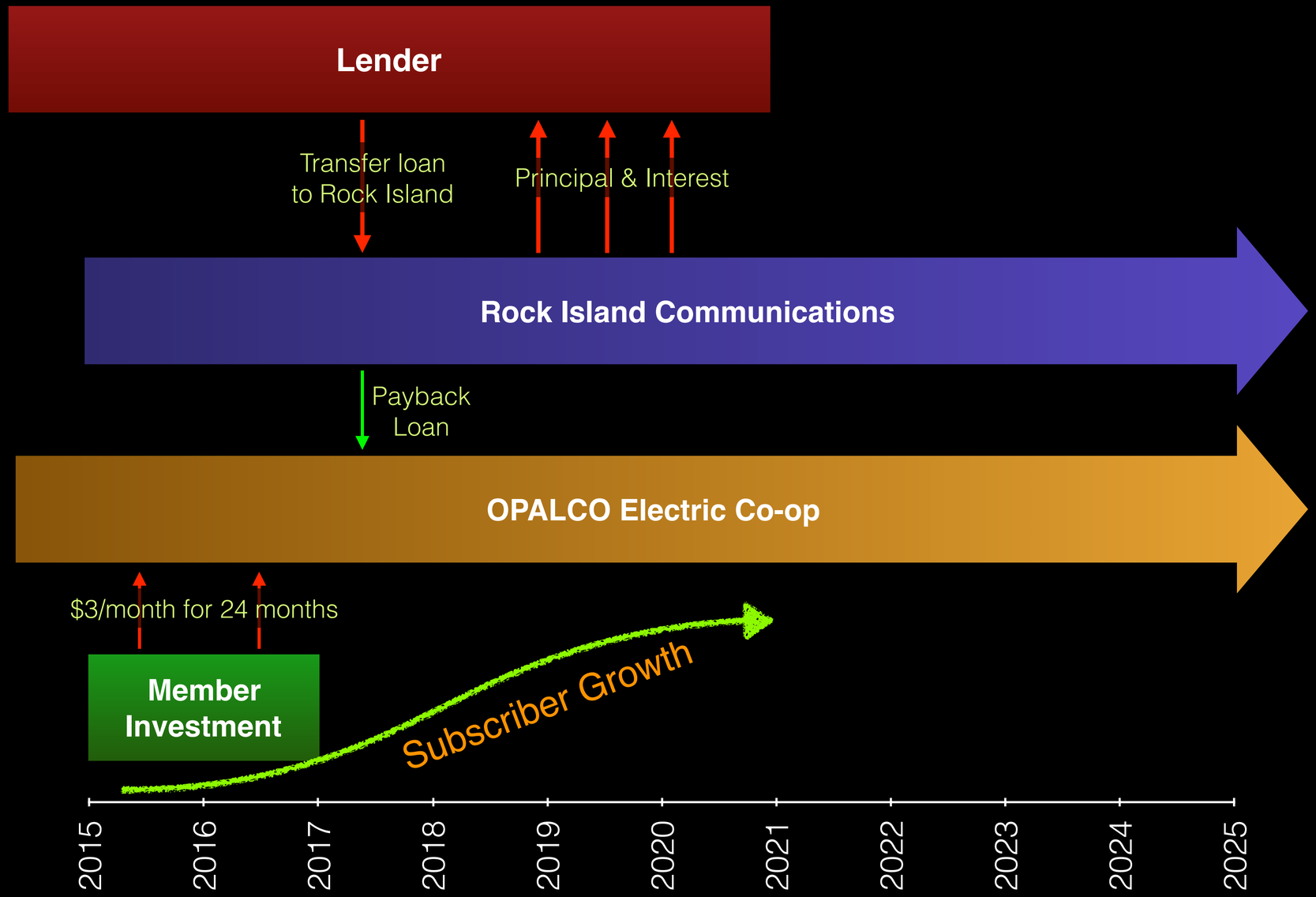
How Investment in Rock Island Benefits Co-op Members: Initial Investment



Headline

- Member Investment:
  - $3/month for 24 months
  - Covers principal and interest of $7.5M startup loan to Rock Island

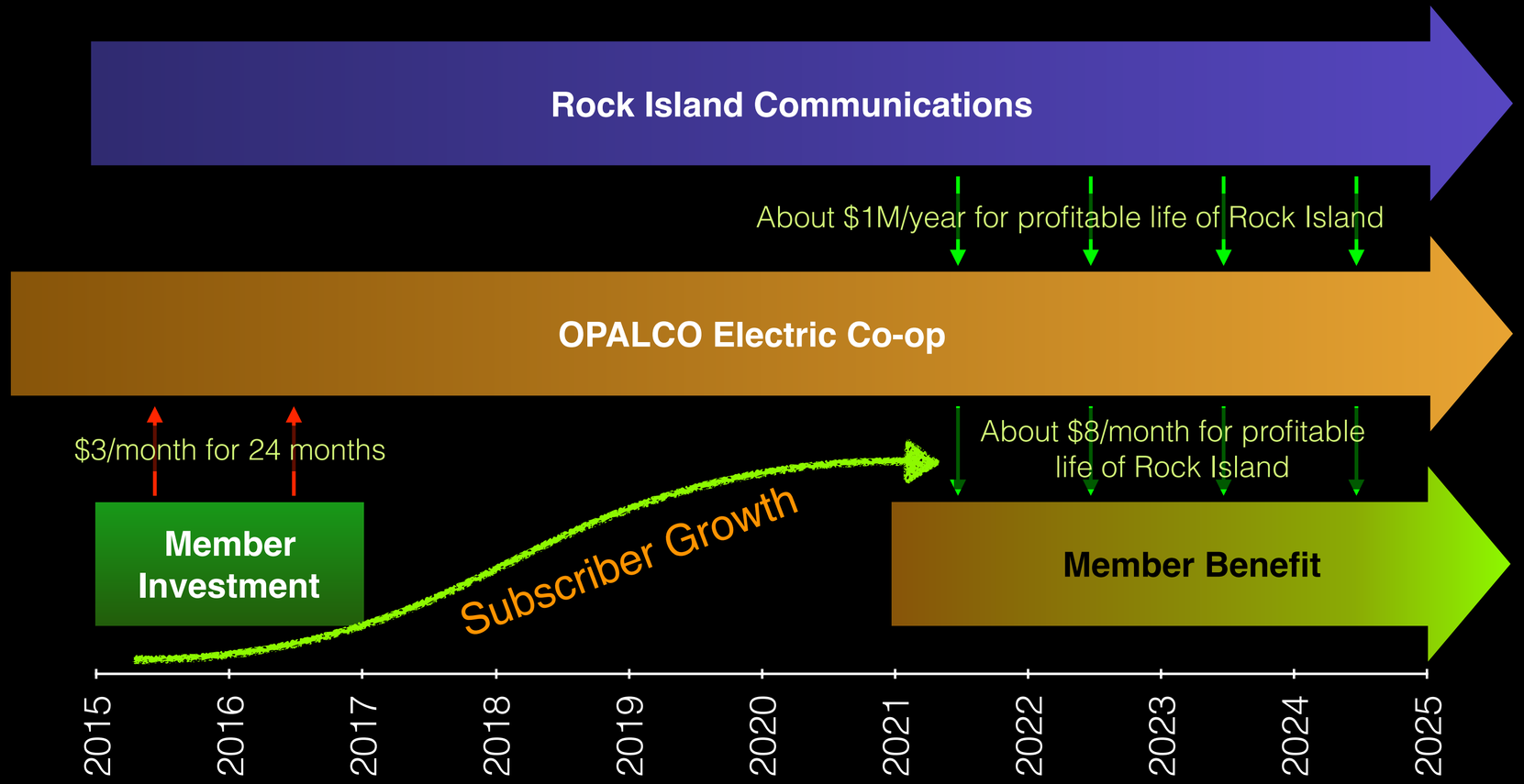
How Investment in Rock Island Benefits Co-op Members: Loan Payback



Headline

- Transfer loan from OPALCO to Rock Island
- Member investment ends 1/1/17

How Investment in Rock Island Benefits Co-op Members: Member Payback



Headline

- Member Investment:
  - $3/month for 24 months
- Member Benefit:
  - Ramping up to ~$8/month, after break-even
  - Profit from Rock Island flows back to OPALCO as an additional revenue stream, which helps further stabilize co-op finances and reduce rates
  - Vibrant local economy empowered by internet-enabled businesses that lift us up beyond the confines of a tourist economy
  - Better communication in neglected parts of the County, especially first responder safety
  - Prepares us for the smart homes and local renewable energy of the not-so distant future
  - Unlimited access for education, advances in rural tele-medicine delivery, and much more

Thank You

Fuel Switching Addendum

San Juan County, Washington Carbon Footprints - Simplified Estimate

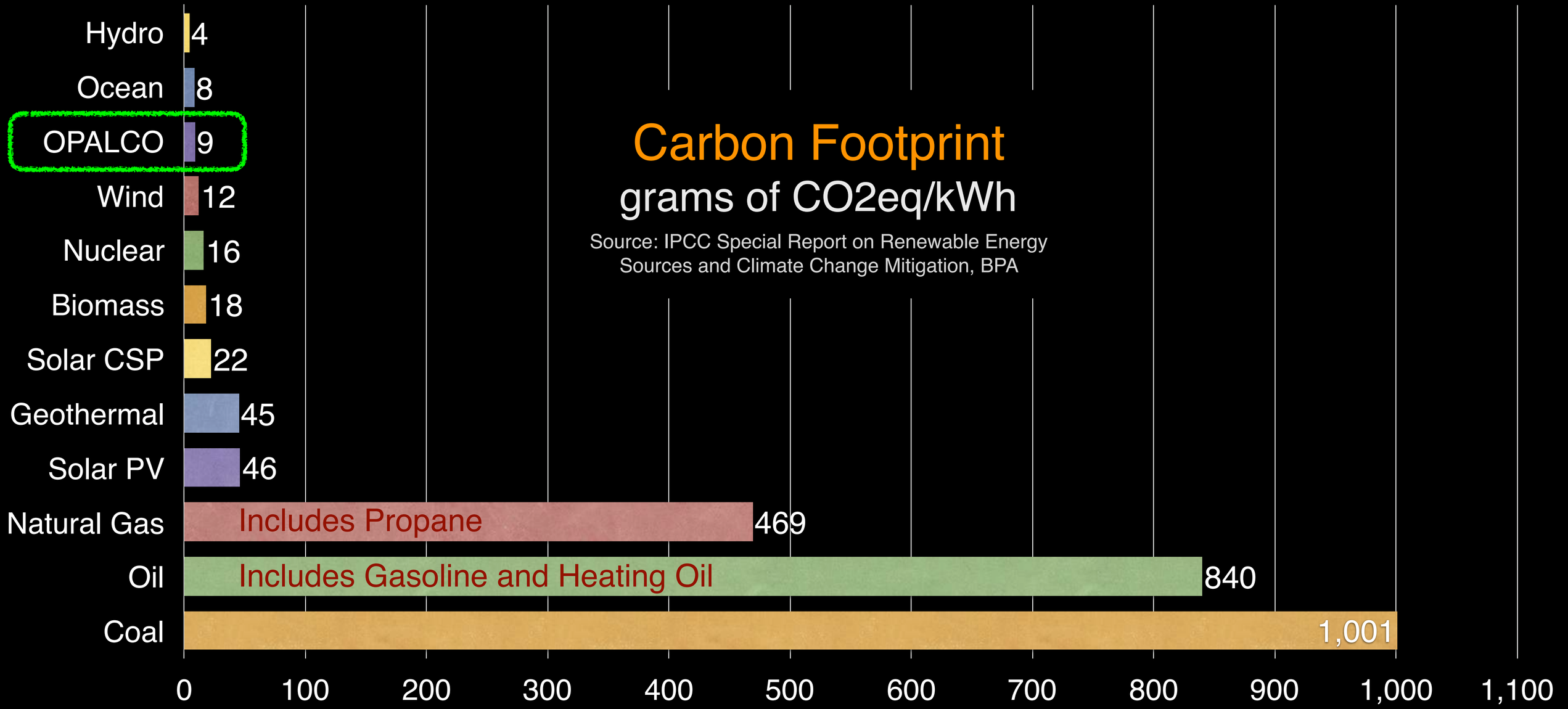
Fuel	Amount Used	CO_2 Intensity	Tons CO_2	Share
Electricity	215,000,000 kWh	48 - 73 lbsCO_2/MWh	7,848	14%
Gasoline	2,700,000 Gallons	8.9×10^{-3} MT/Gal	26,433	46%
Propane	1,896,750 Gallons	5.2×10^{-3} MT/Gal	10,849	19%
Wood/Other	1,802 cords	6,600 lbs/cord	5,946	10%
Agriculture			1,718	3%
Waste Treatment/Recycling			4,664	8%
Total			57,458	100%

43,228 T

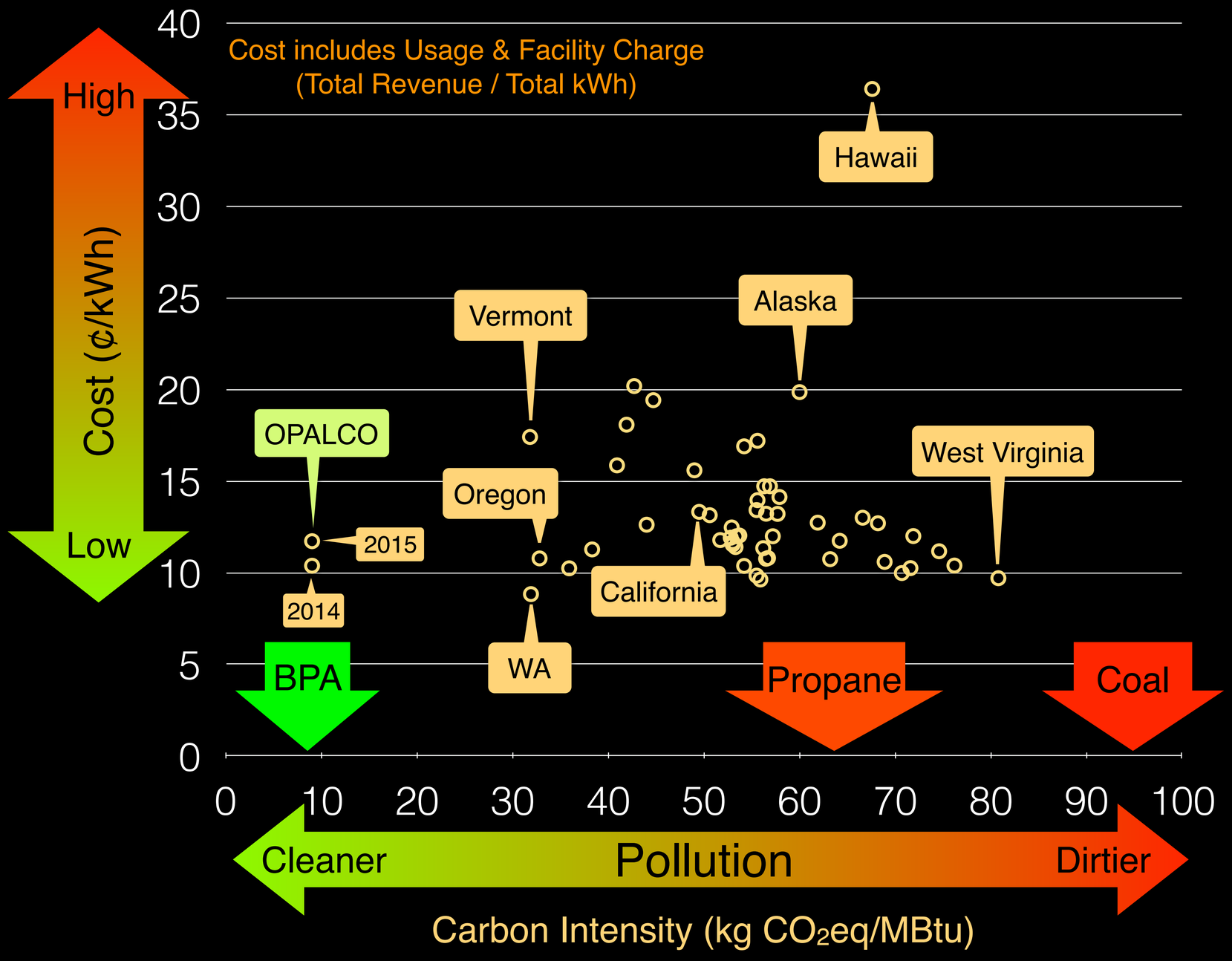
75%

~3.2 T/person/year

Carbon Footprint of Various Forms of Energy



OPALCO: Low Cost Cleanest Electricity in US



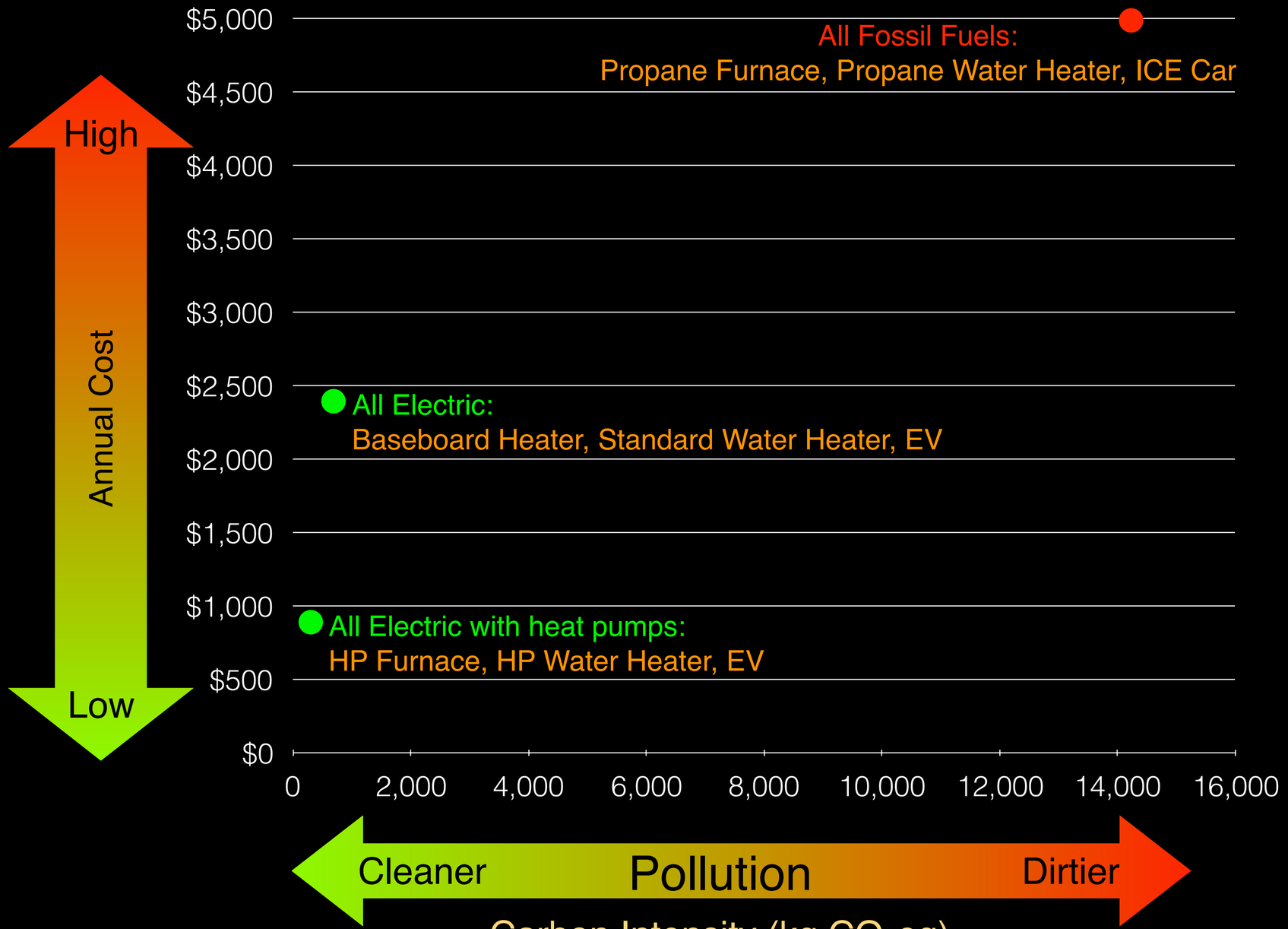
Notes

Though OPALCO's 20 island service area has one of the most complex and expensive infrastructures in the nation, we deliver some of the lowest cost, cleanest energy.

- Hydro: low cost, very clean
- BPA fuel mix is predominately hydro, with some wind, biomass and coal. Coal will be phased out over the next decade.

Source: EIA, BPA

All Electric Home and Car Versus Fossil Fuel



Source: EIA, EPA, OPALCO

Headline

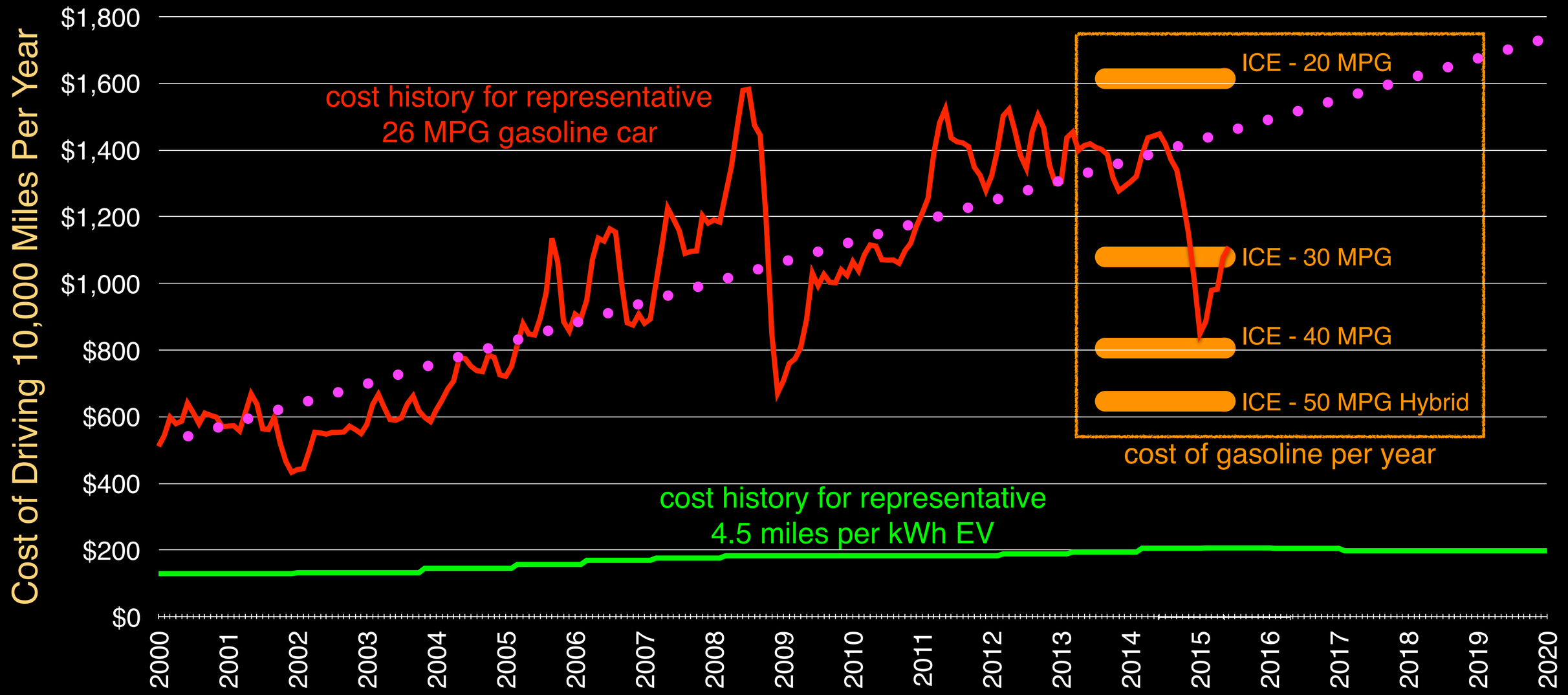
- All electric home up to 5 times lower cost and up to 90 times less CO2.

Notes

- Heating: Electric baseboard or heat pump, or propane furnace
- Water Heater: Standard electric or heat pump, or standard propane
- Car: Driving 10,000 miles, Internal Combustion Engine (ICE) getting 30 MPG, or Electric Vehicle (EV) getting 4 miles per kWh of electricity (e.g. Nissan Leaf)
- Electric price is based on OPALCO rate plan through 2020. Fossil fuel price, two year average through February 2015.
- GREEN = Electric heating and car
  RED = propane heating and gasoline car

Annual Fuel Cost of Driving a Gas Car Versus Electric Vehicle (EV)

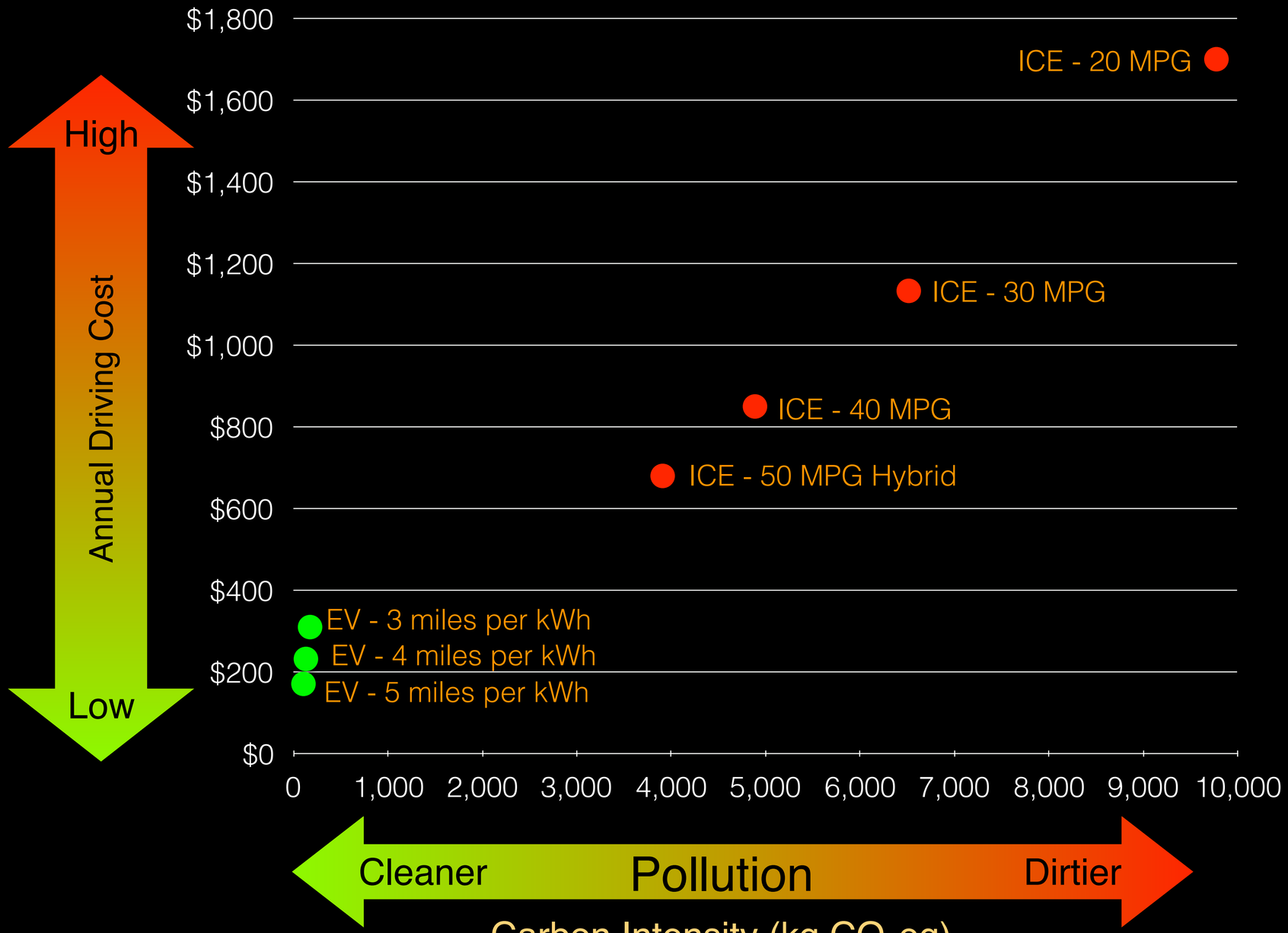
Driving 10,000 miles each year - various gasoline cars versus representative EV



Electric price based on OPALCO rate plan to 2016. Representative EV gets 4.5 miles per kWh. Regular octane gasoline average US price through June 2015. Island gas prices tend to be 10%+ higher. Representative gasoline car gets US average 26 MPG. 2015 comparison based on 2 year average gasoline price to smooth volatility, showing gasoline cars with Internal Combustion Engines (ICE) from 20 to 50 MPG.

Source: EIA, OPALCO

Driving A Car: Annual Cost and Carbon Footprint



Source: EIA, EPA, OPALCO

Headline

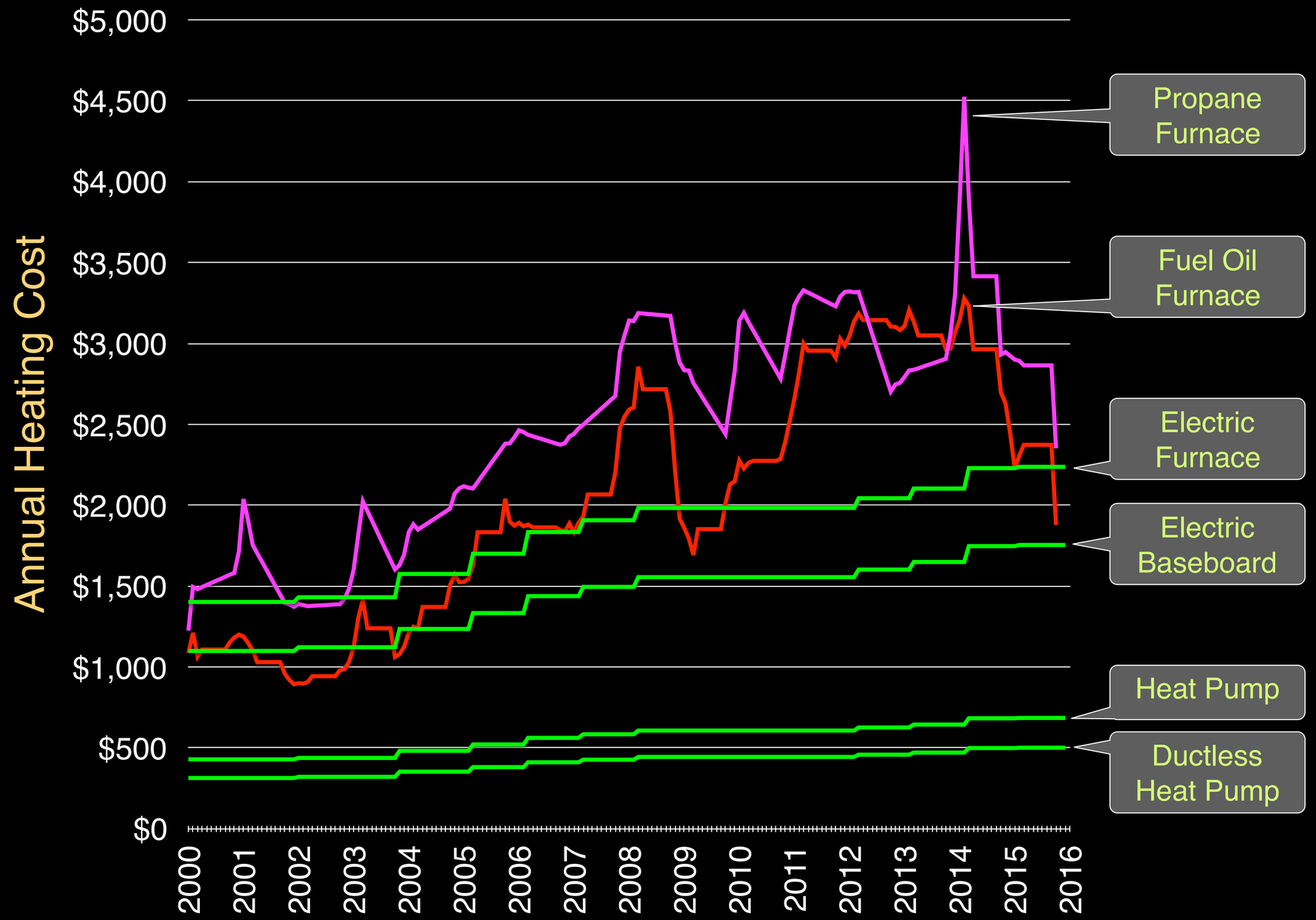
- Electric vehicles energy cost about 3 to 10 times less than gasoline vehicles, depending on the MPkWh and MPG, emitting up to 200 times less CO2.

Notes

- Driving 10,000 miles per year
- Internal Combustion Engine (ICE) car getting 20 to 50 Miles Per Gallon (MPG)
- Electric Vehicle (EV) getting 3 to 5 miles per kWh of electricity (e.g. Nissan Leaf)
- Electric price is based on OPALCO rate plan through 2020. Regular octane gasoline price two year average through February 2015.
- GREEN = Electric Vehicles (EV)
  RED = Internal Combustion Engines (ICE)

Annual Fuel Cost of Heating a Typical Home

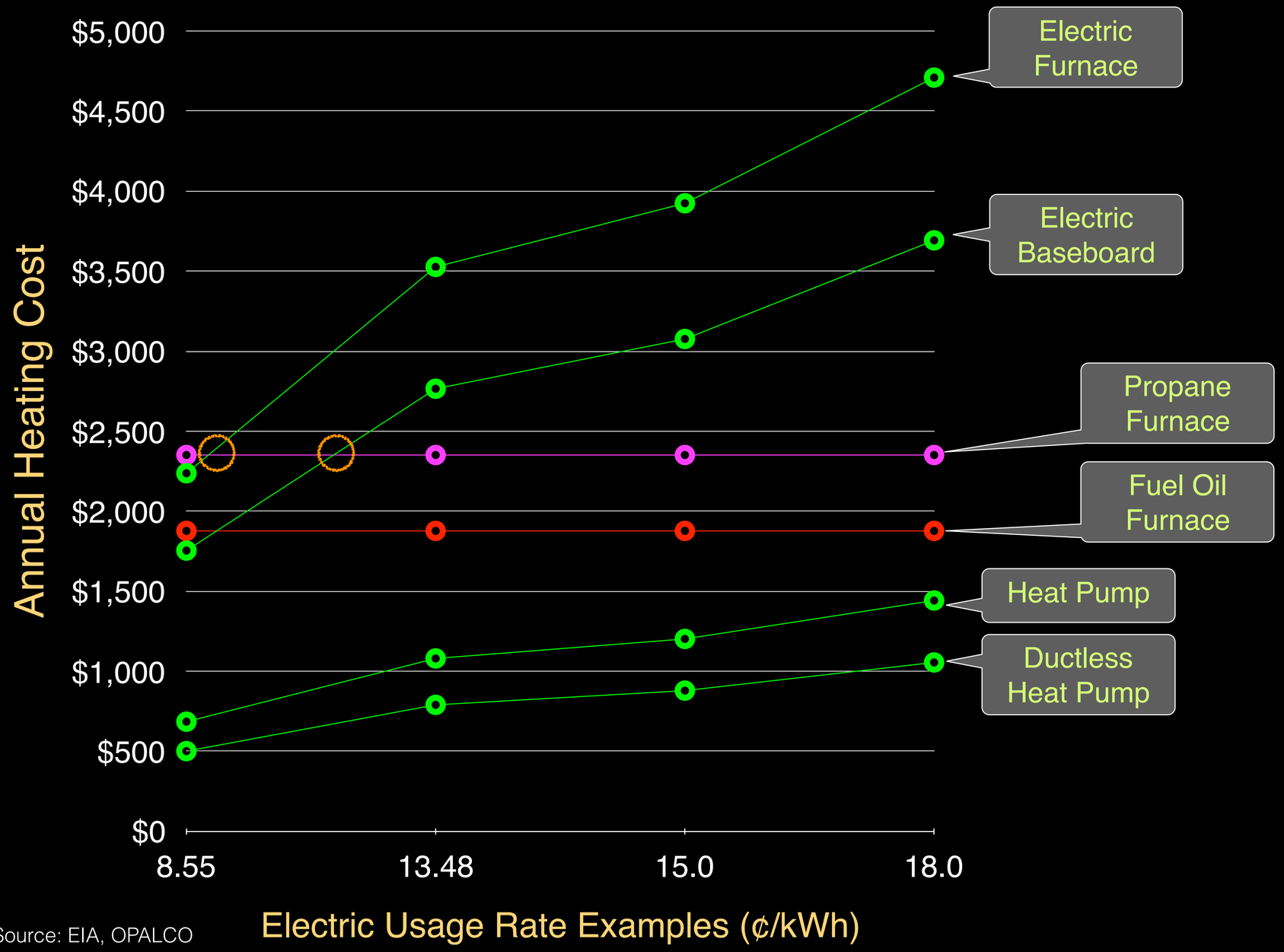
Comparing Various Electric, Propane and Fuel Oil Heaters



Source: EIA, OPALCO

Comparing Heating Cost at Higher Electric Rates

Comparing Various Electric, Propane and Fuel Oil Heaters



Source: EIA, OPALCO

Headline

- The higher the electric Usage Rate, the less compelling the fuel switching impetus, reducing the potential ROI for switching to electric

Notes

- Various electric usage rates to understand fuel switching crossover
- Propane and fuel oil prices are current

Thank You