Interim Report A

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Prepared for the Water Supply Advisory Committee December Packet

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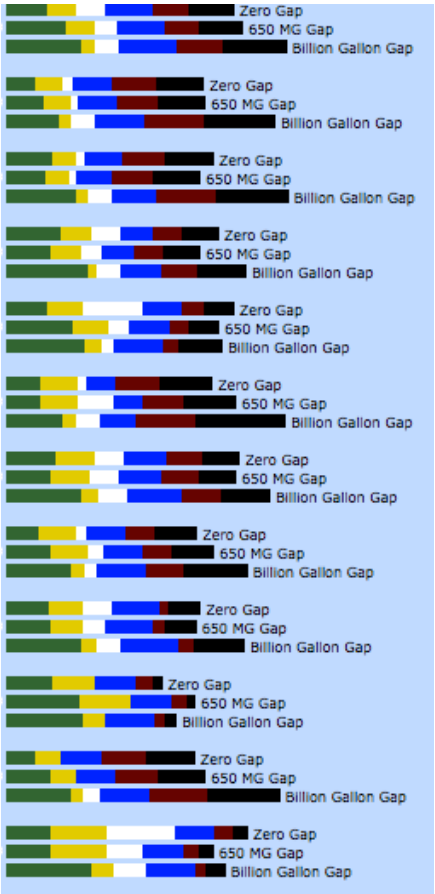
I.

I. Introduction



The above graphic is an example of a stacked bar graph generated on the WSAC Recon Website.

This document is a pastiche of graphs, tables and brief narratives capturing Committee Member work on the online WSAC Decision model. The purpose of these packet materials is to provide fodder for discussion in the December meeting and to help fulfill the goals of Recon.

The document contains use statistics and a great deal of information about Ctte-member weights. *Interim Report B* will contain similar information about the ratings changes Ctte members made.

The second person—'you'—refers to the Ctte Members.

You can relate this report back to the website by going to https://www.decisionharvest.com/dhroot/dhowners/santacruz/vreports/scwsac_recon_cmtee_comments.asp

Don't worry about the tokens—we aren't gathering data any more.

II. Usage Statistics

There's no secret: you did a lot of work, as you can see in figure II.1. The usage statistics also indicate the intense thought you gave to the ratings (figures II.2-3), and the weights, figure II.4. And then—oh, you wonderful Committee—you really came through for the political feasibility ratings, figure II.5.

	Zero Gap	640 MG Gap	Billion Gap	Total Views	I am done!s	Comments
	16	90	16	122	4	2
	161	132	161	454	15	34
	168	100	39	307	3	4
	39	99	59	197	4	0
	49	62	37	148	4	8
	35	36	70	141	10	0
	89	39	19	147	1	1
	310	259	136	705	14	24
	49	45	67	161	10	0
	150	20	63	233	3	1
	6	1	205	212	4	1
	87	130	138	355	7	0
	89	33	32	154	7	2
	149	58	42	249	4	4
Total	**1397**	**1104**	**1084**	**3585**	**90**	**81**

Figure II.1: Broad Usage Statistics

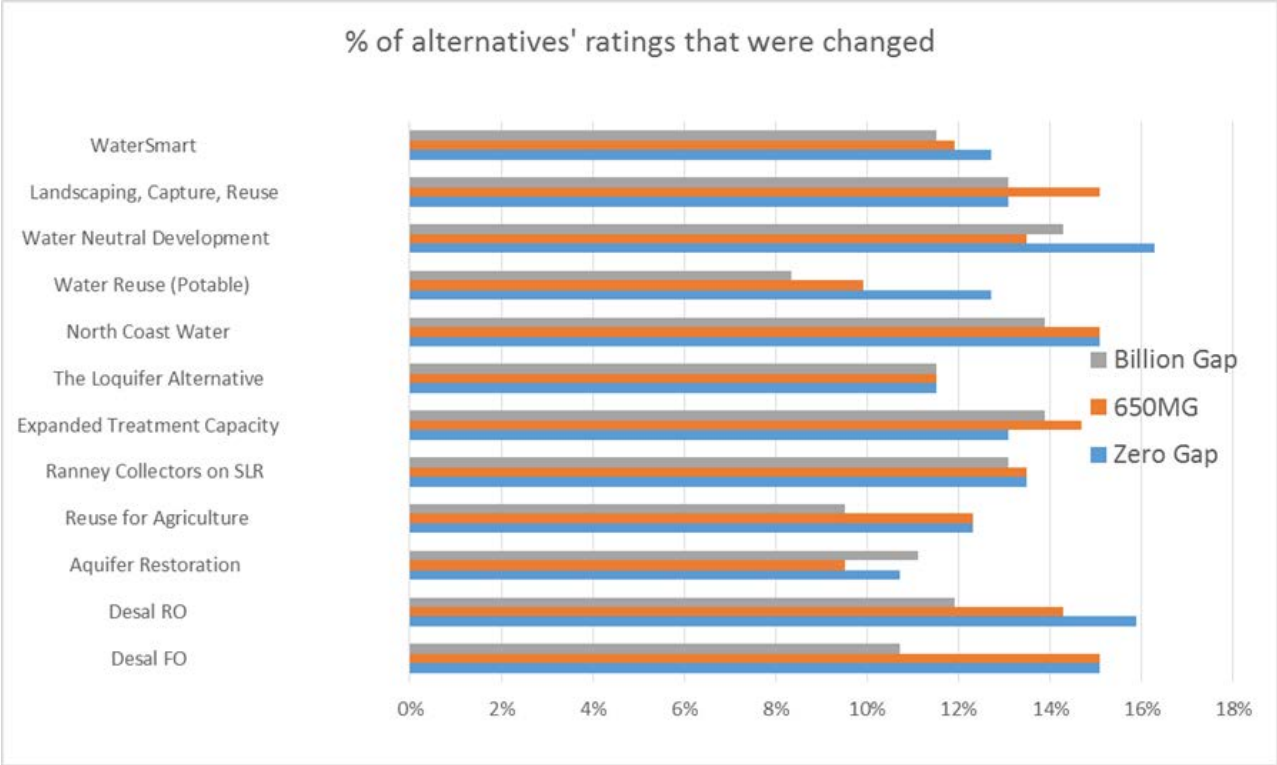


Figure II.2: Percentage of ratings that were changed.

(As you can see from the next graphic, some people did not change ratings for different scenarios, so we are working to prepare a composite.)

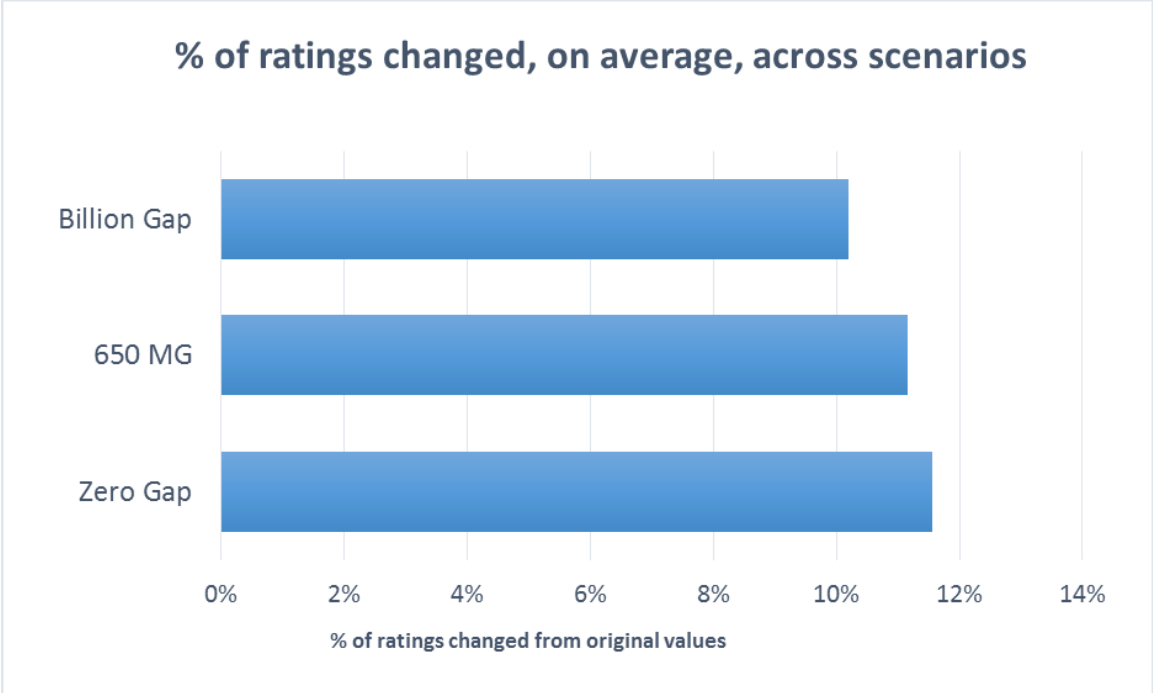


Figure II.3: Ctte Ratings Changes Across Scenarios

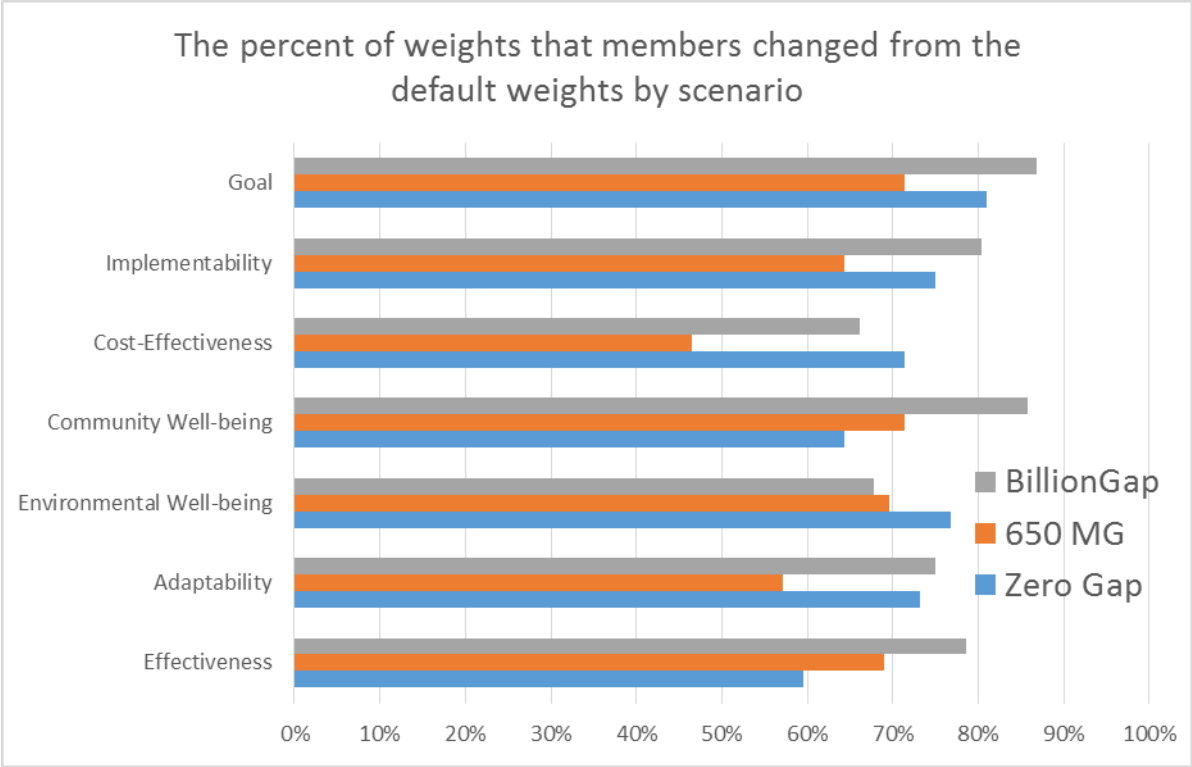


Figure II.4 Overall frequency of weights changes the Ctte made.

The weights were set to a default value mid-scale, so 80% is close to perfect. Members energetically stamped their own balance to the models and they hit all three scenarios thoughtfully and evenly.

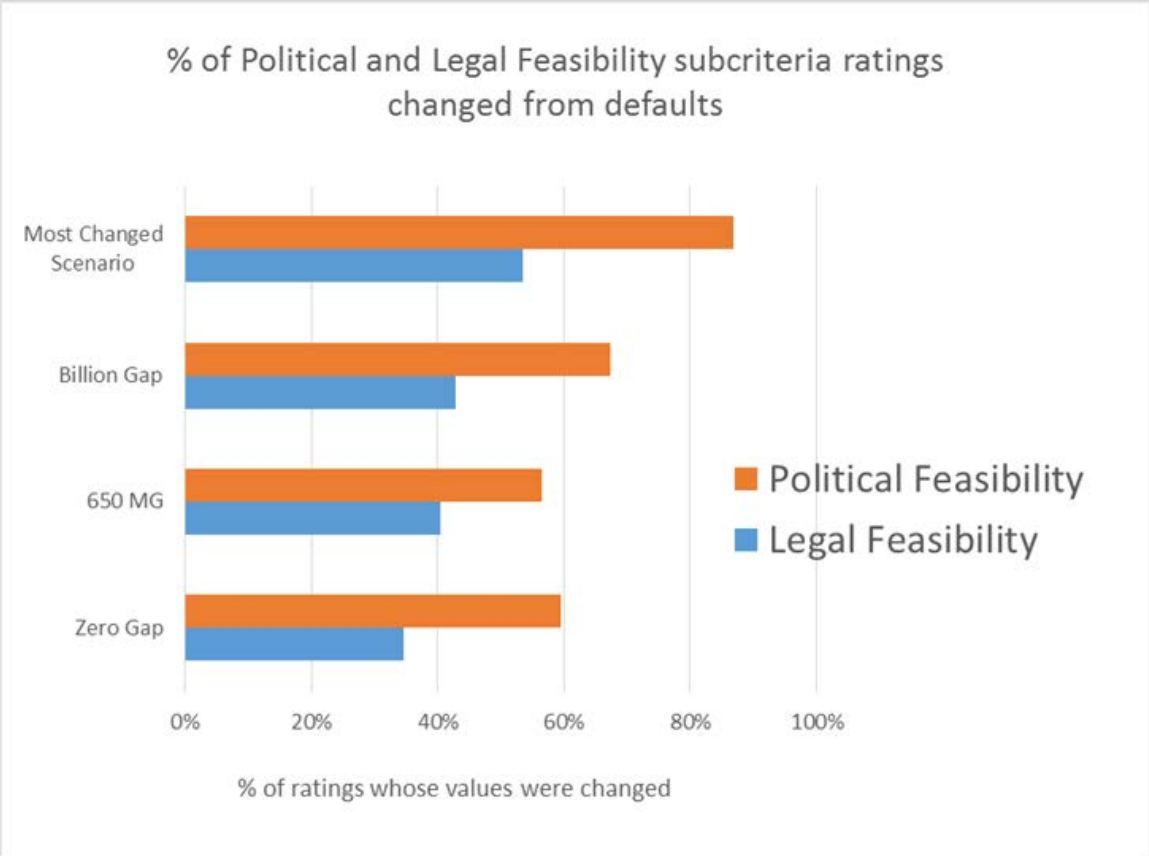


Figure II.5: The Ctte took Political Feasibility very Seriously

Wow! 80% overall is quite good as we would not track if you happened to leave a rating at the default value. The drop-off on legal feasibility is understandable—that should probably have been an expert rating for you to respond to rather than originate.

III. Now for the Weights

As you recall from the website (see thumbnail insert), you first apportioned your weights among high level criteria and then divvied your weights among the subcriteria.

Part of what we wanted you to see is that you could agree on the same 'facts,' (ratings) but if your values (weights) are different the stacked bar graph could look quite different. The second motive for having you register your weights is that, for Recon, it is as important to determine which values differences drive your decision. And perhaps most interestingly, we wanted you to ponder how your weights might change across scenarios. (This relates to the capacity-building aspect of Recon and to the preparation for scenario work in the Real Deal.)

In this section, we present information about overall trends, showing min-max on the weights and then a standard deviation (figures III.1 and III.2). We then break that information out by scenario—quite interesting! See figures III.3-5.

But the most fascinating graphs, we would argue, are the individual weights portraits. Figure III.6 shows a composite, the following 14 radar graph sets represent each of your weights portraits.

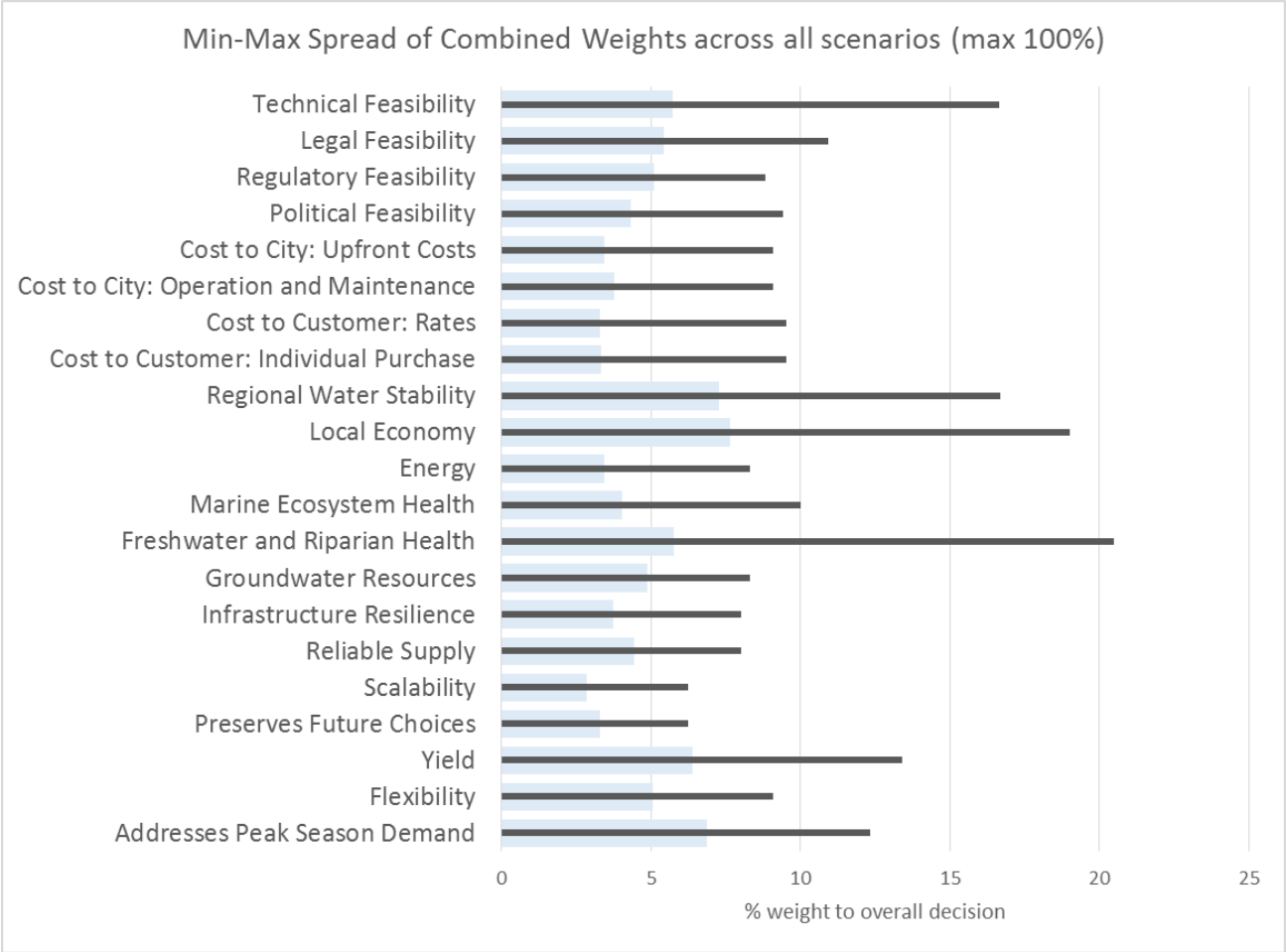


Figure III.1: Min-Max across scenarios.

Clearly at least one individual set the weight of each sub-criterion to 0 on at least one of the scenarios. The blue bars are the averages, presented only for context (averaging weights is usually nonsensical except to provide a reference point for the variability, which is what we really care about).

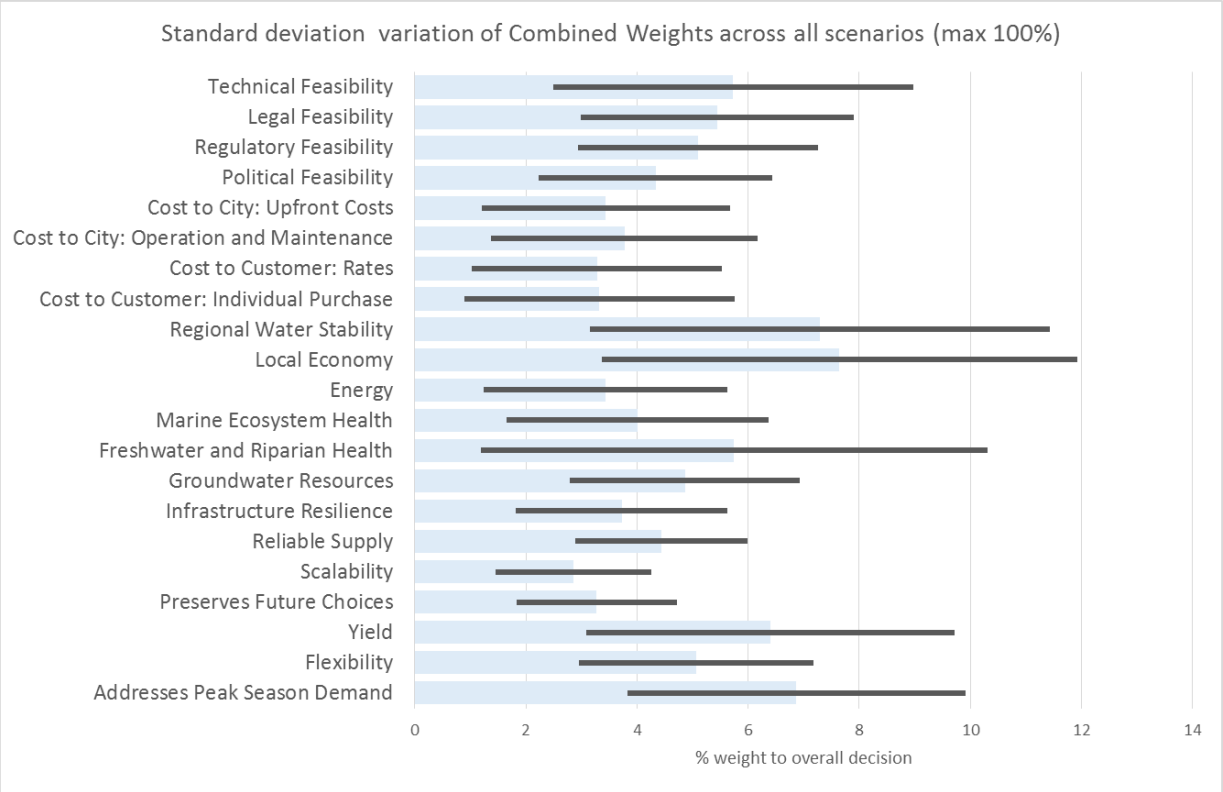


Figure III.2: Standard Deviation Weights by Criteria

This is the same information as the last figure, but now looking at a standard deviation rather than min-max. (Remember that stats class? Think of the standard deviation as the shoulder of the bell curve, leaving out the outliers.) You can see that some subcriteria have a much wider spread than others.

Zero Gap

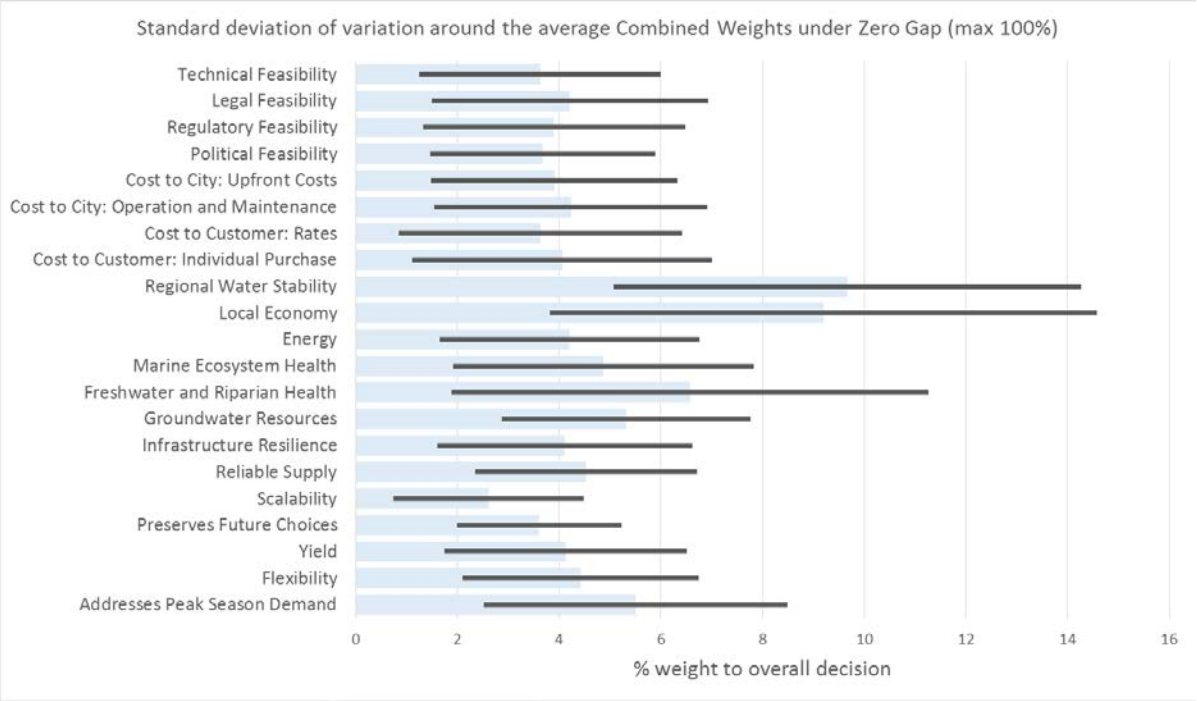


Figure III.3: The weights applied to Zero Gap have the widest variation.

Be aware the shifting horizontal scale of the three scenarios

650 MG

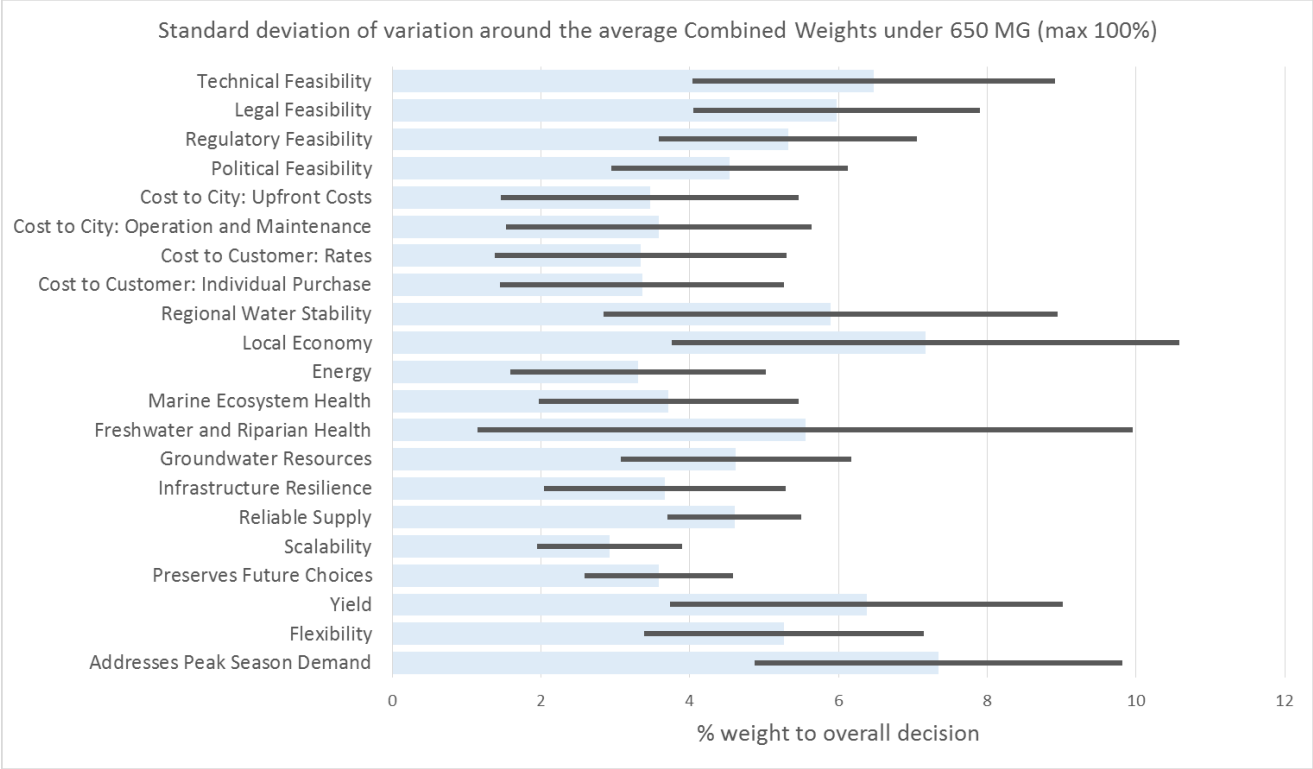


Figure III.4: The 650 MG Gap Weights / Standard Deviation.

Note – when a sub-criterion has more weight, its variance will generally increase because of that larger multiplier.

1 BG

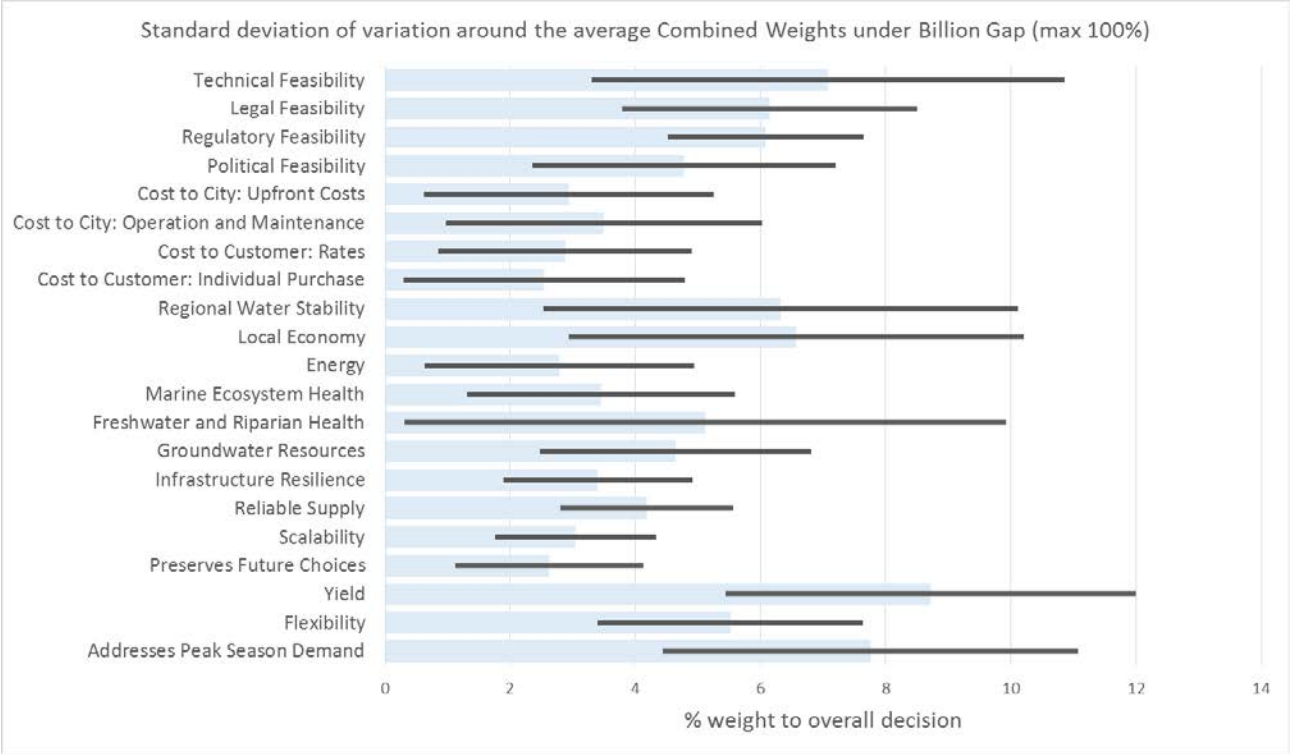


Figure III.5: The BG Weights

In the Billion Gap, Yield is generally more important, and has wider variation across committee members.

The Weights Portraits

Seeing the spread in combined weight for the sub-criteria provides some insights in the spread of thinking of the Committee members, though it is rather abstract:

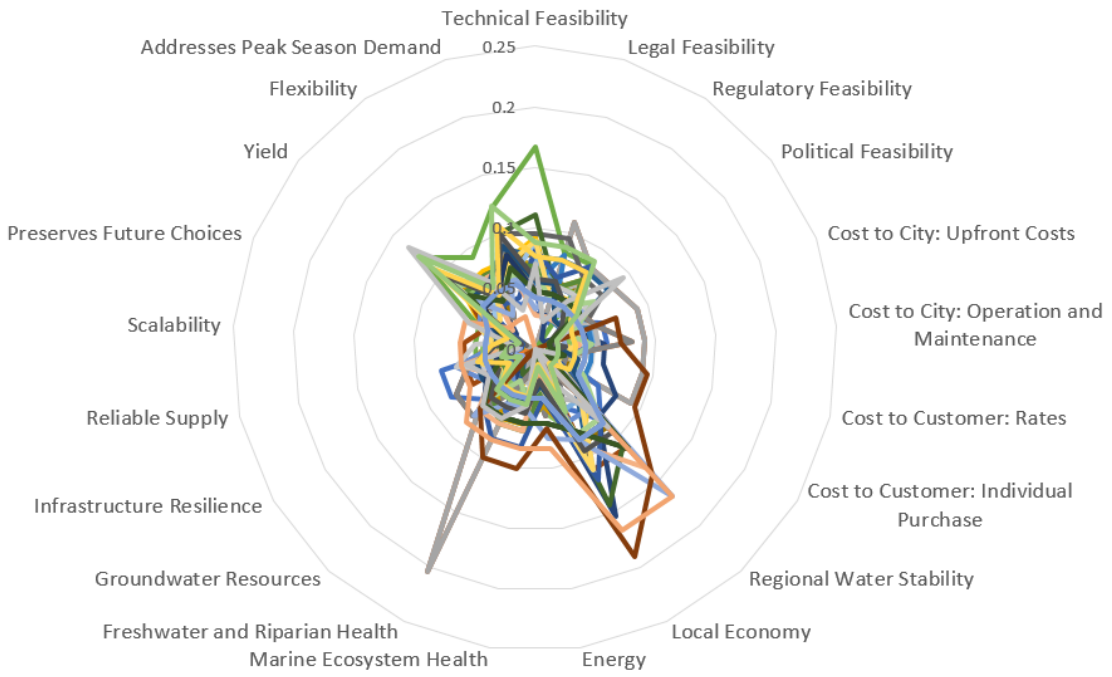
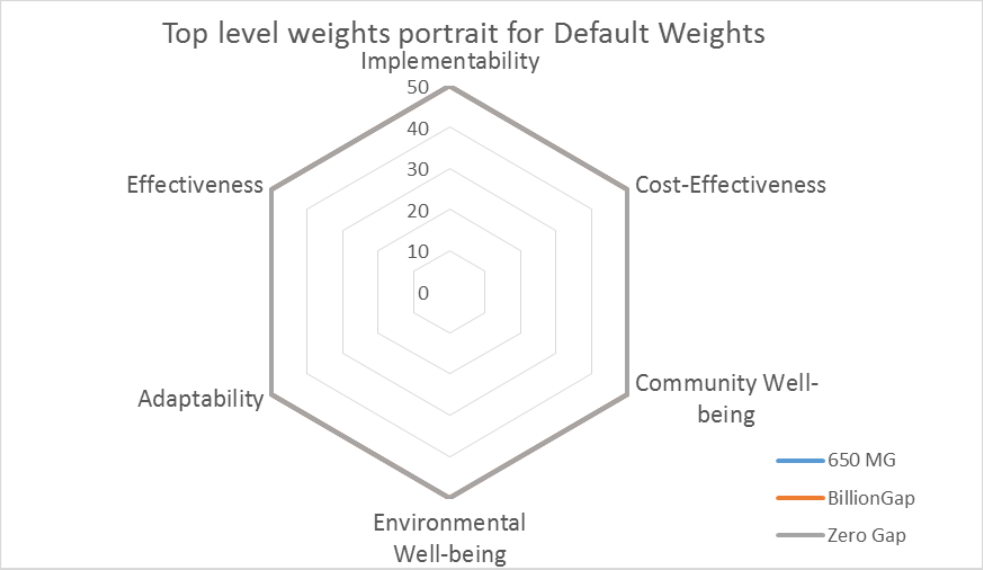


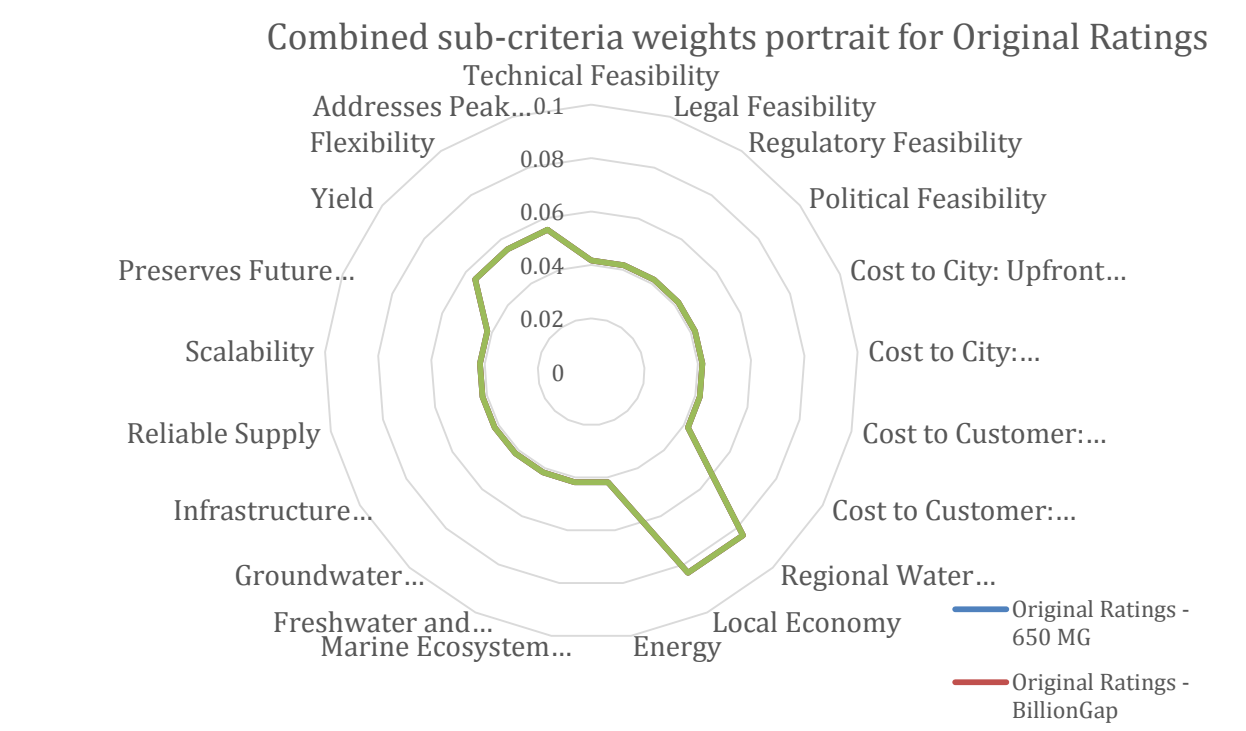
Figure III.6: Combined Weights Portrait

What is useful from this squiggle is where it doesn't go—none of the subcriteria approach the outer ring. This means you all have nuanced positions—even Ctte-member number 1! (Whose daring and interesting portrait starts off the gallery… read on and see for yourselves.)

First, the default: If all weights were set to the midpoint, as the defaults are set, then the "portrait" of the top criteria weights for all three scenarios would be simply:

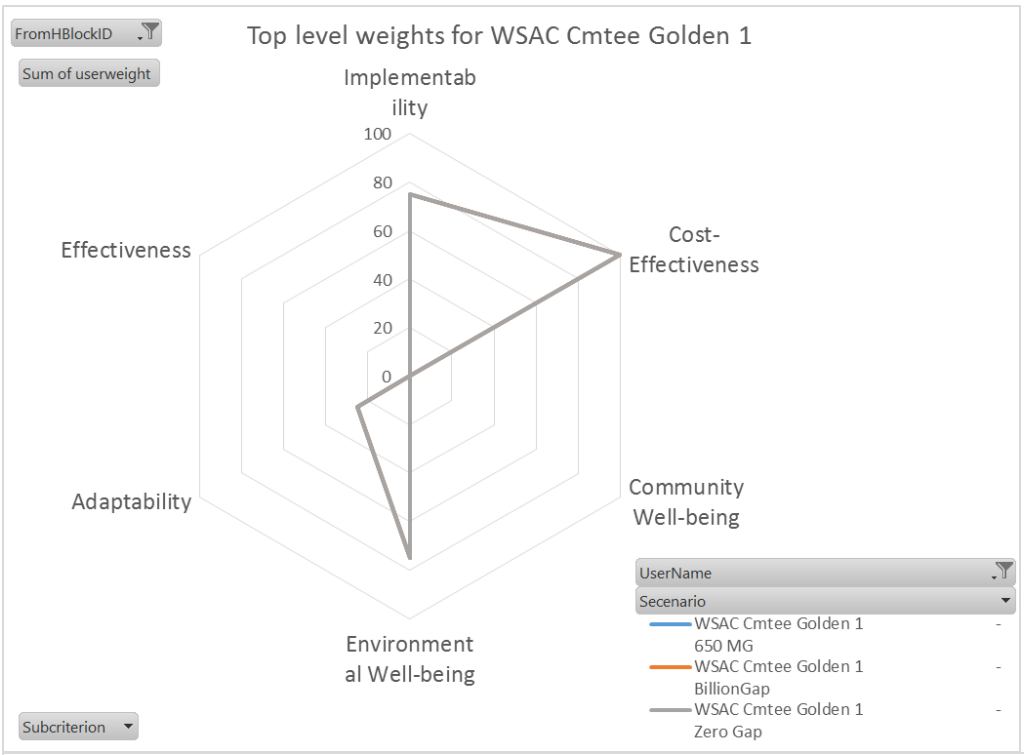


You only see the grey polygon for the Zero Gap scenario; the other two are hidden underneath.



When you see this shape peeking through, it suggests the ctte member skipped the weights for that scenario.

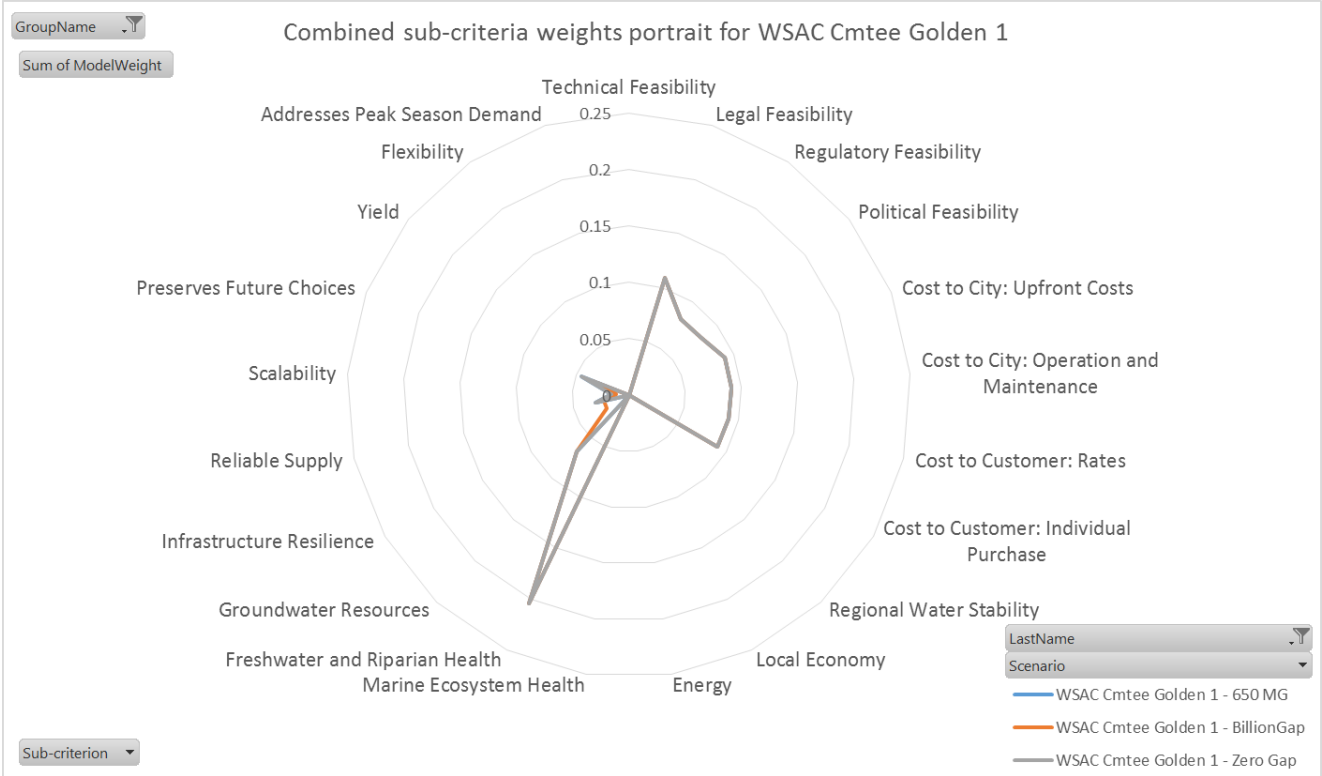
Cmtee Member 1



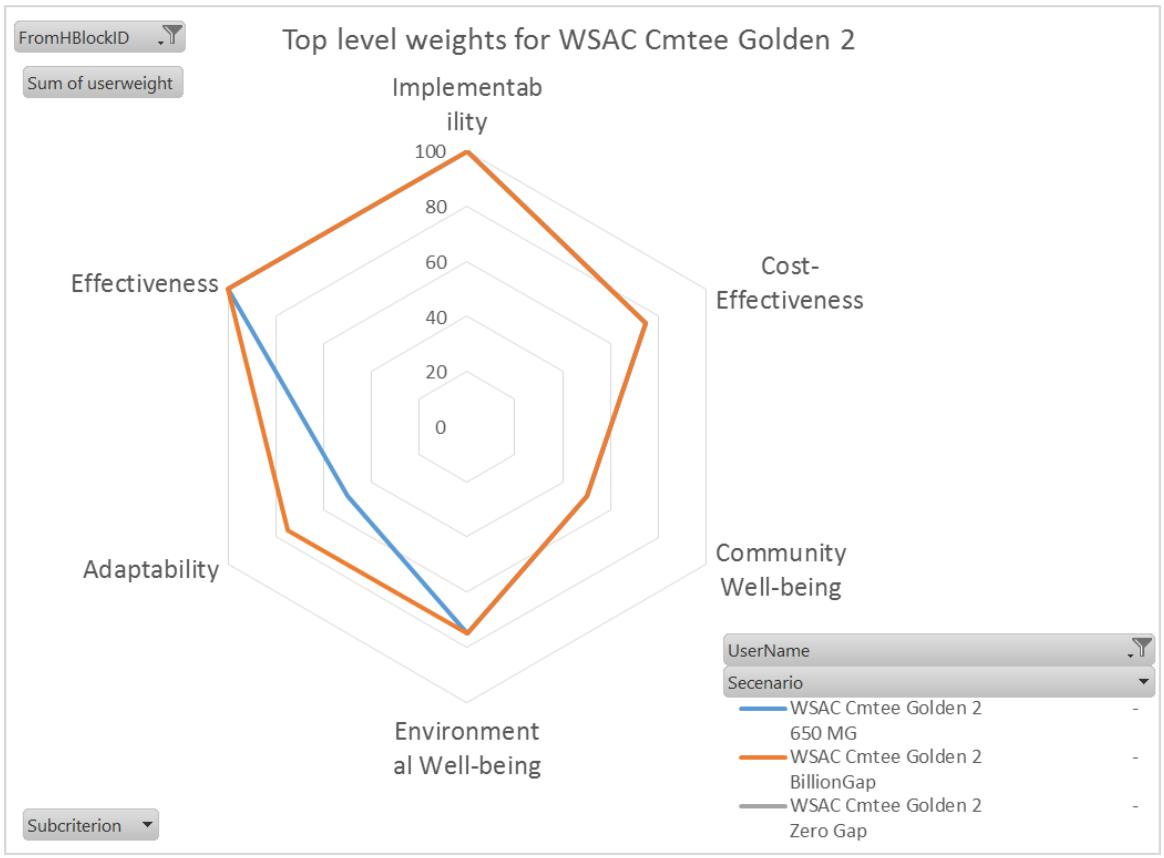
This person did not change weights from scenario to scenario, except for the little bit that peeks out relating to scalability and reliable supply in the subcriterion portrait below.

And it is arguably the most distinctive 'portrait.'

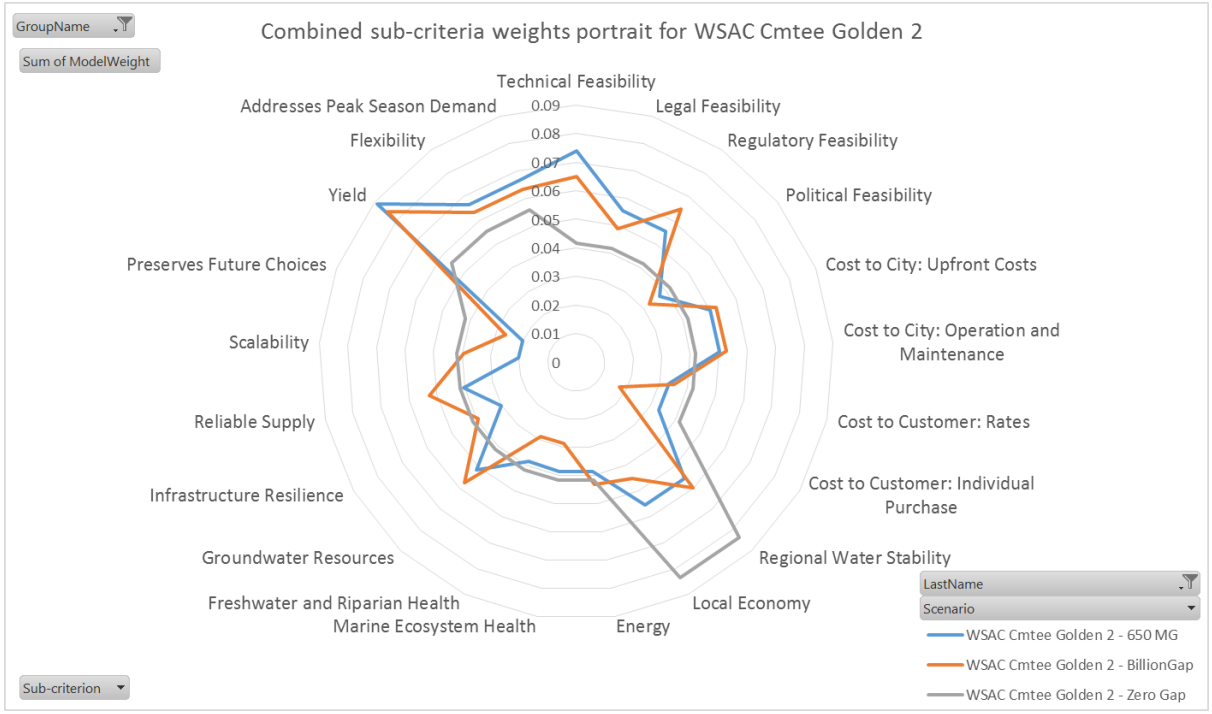
This person also supplied a lot of the 'zeros' that showed up in the min max.



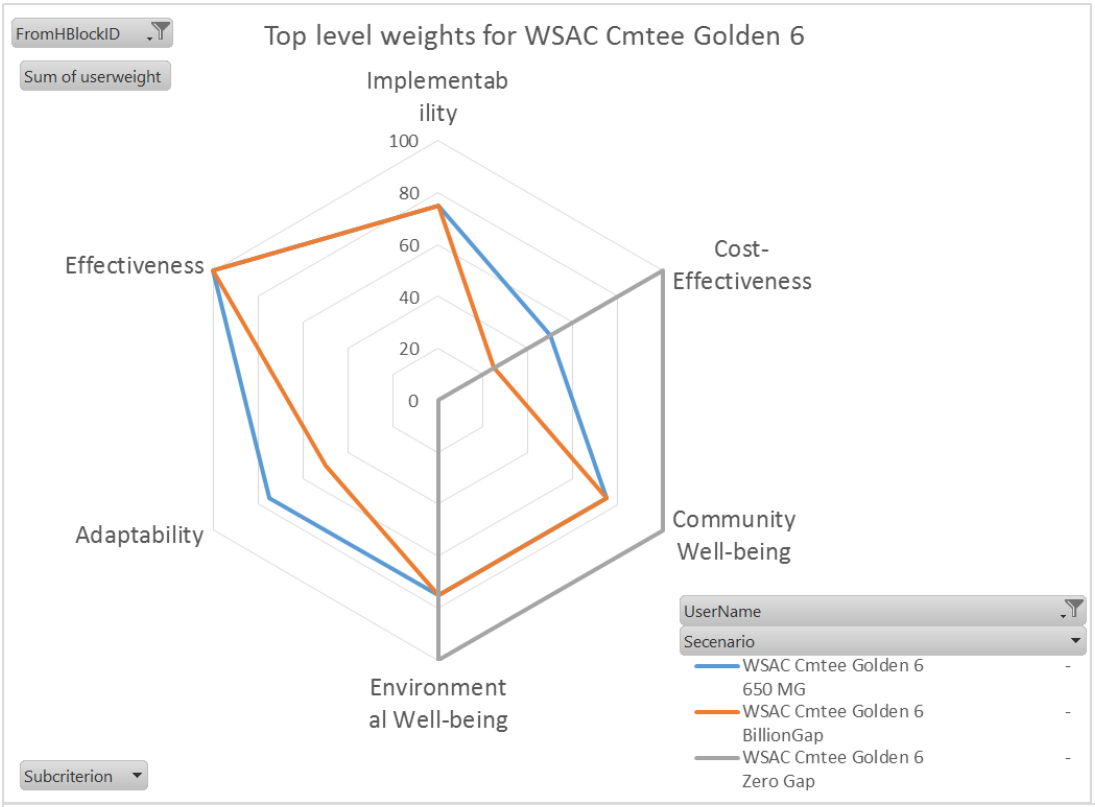
Cmtee member 2



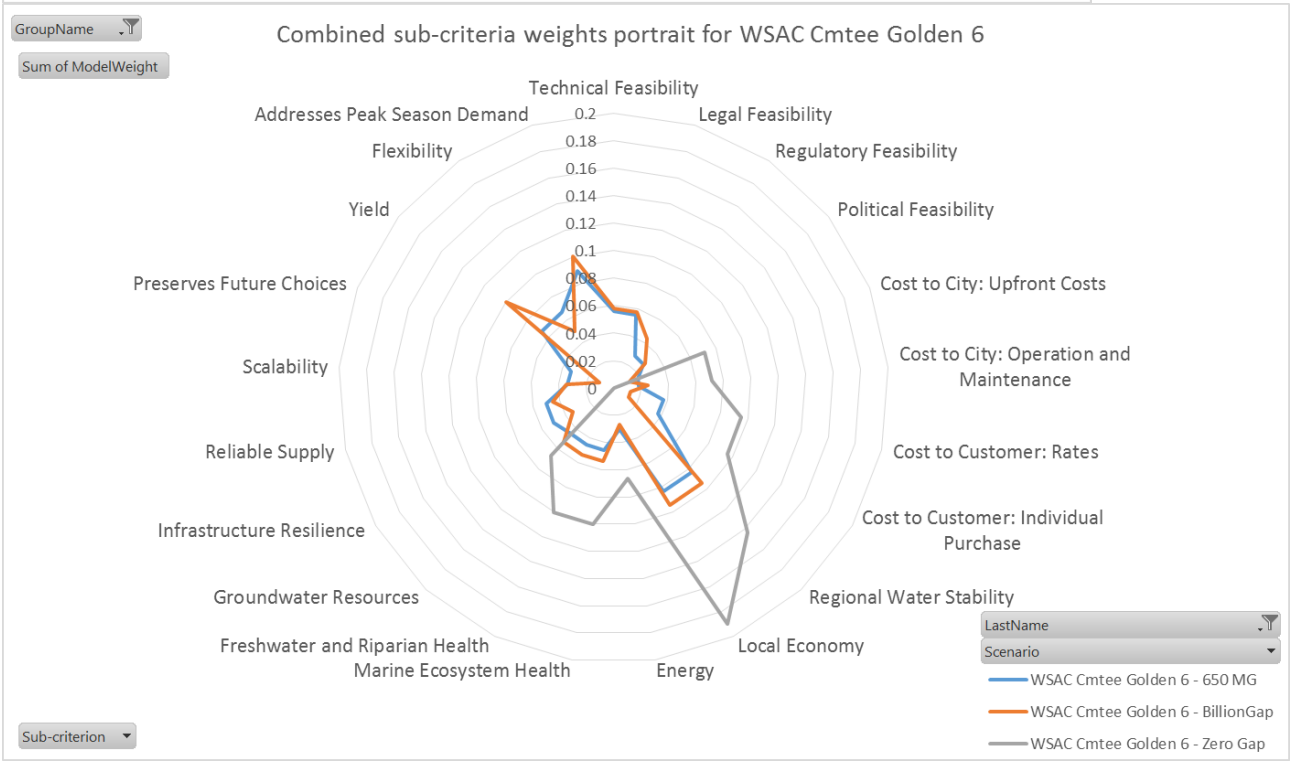
This person did not weigh the zero gap scenario (as you can see by the default gray shape below) but did emphasize adaptability for the BG Gap.



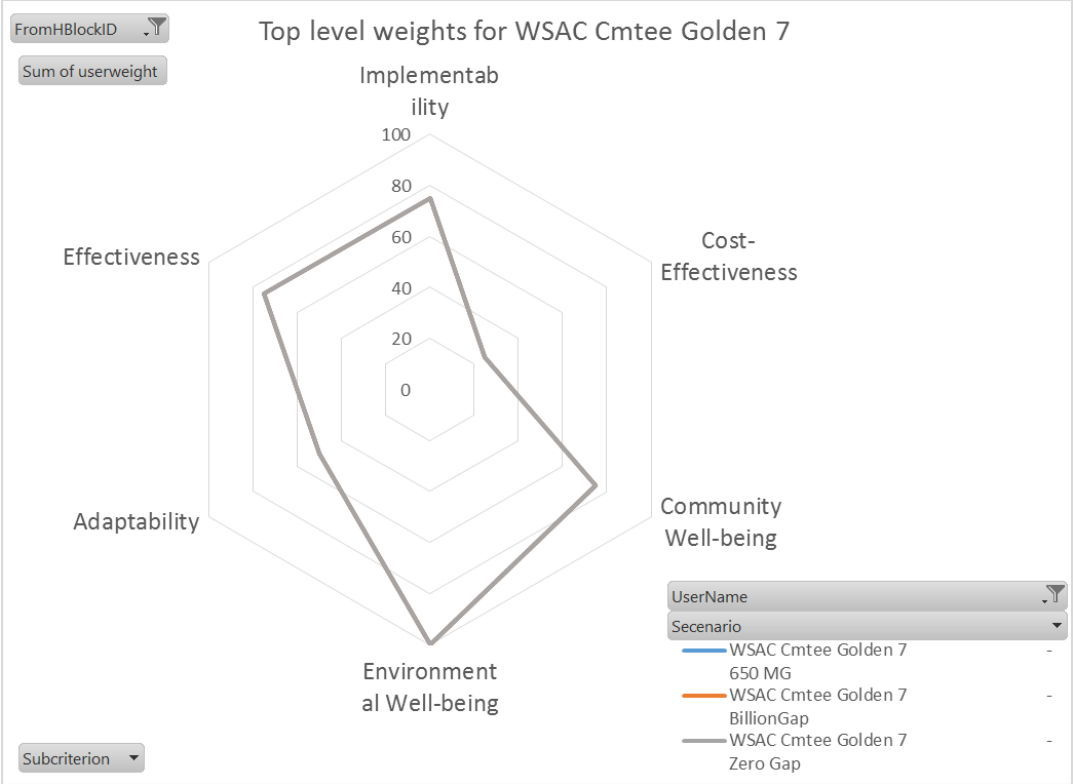
Cmtee member 6

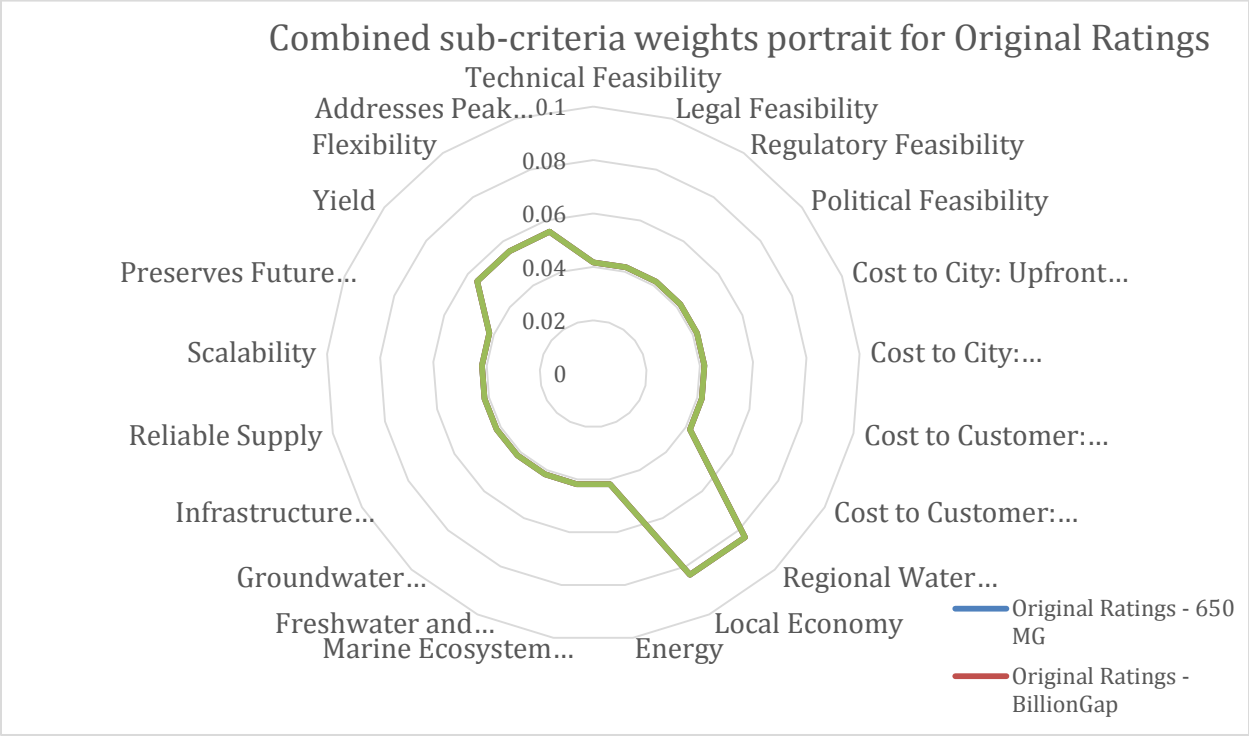


Intriguingly different weights across scenarios! (The 650 line is hidden under the BG line in a couple of places). Several people gave 'adaptability' a spike in the middle scenario.

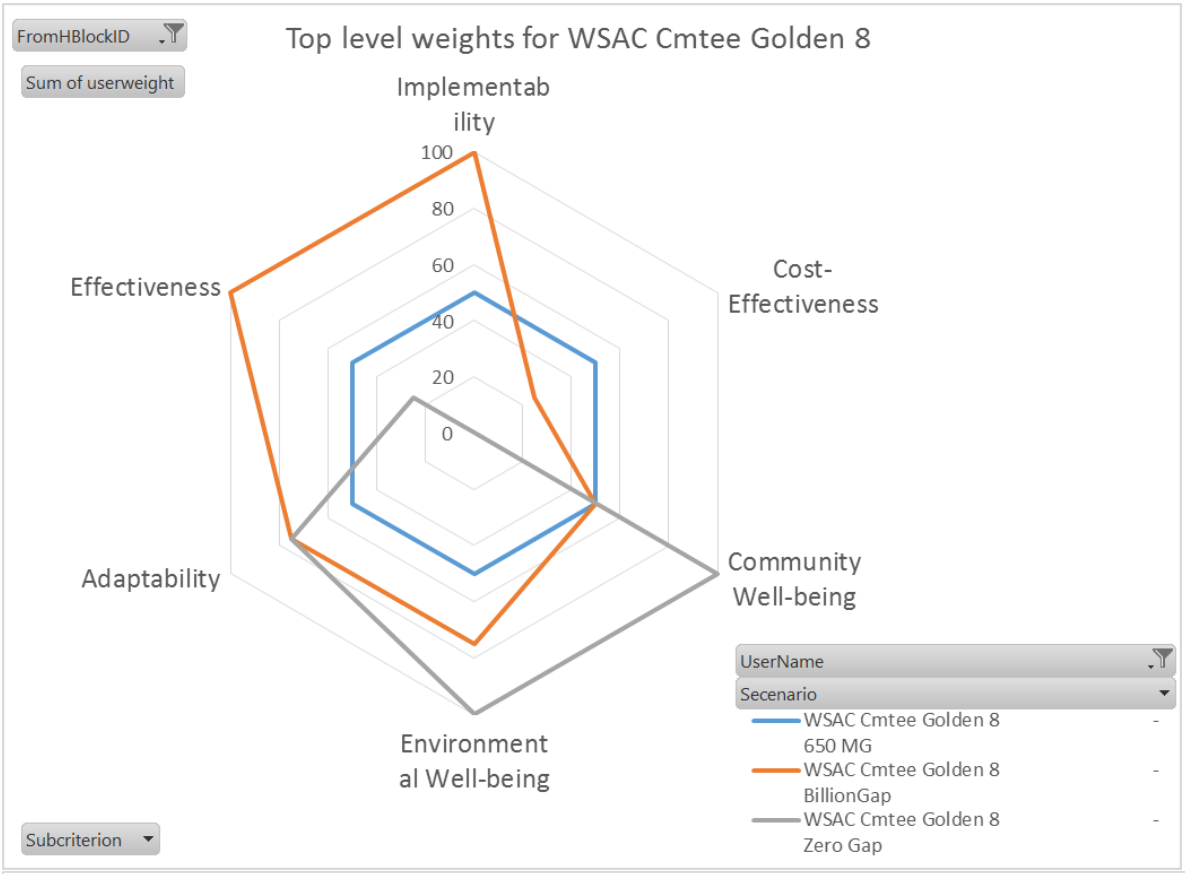


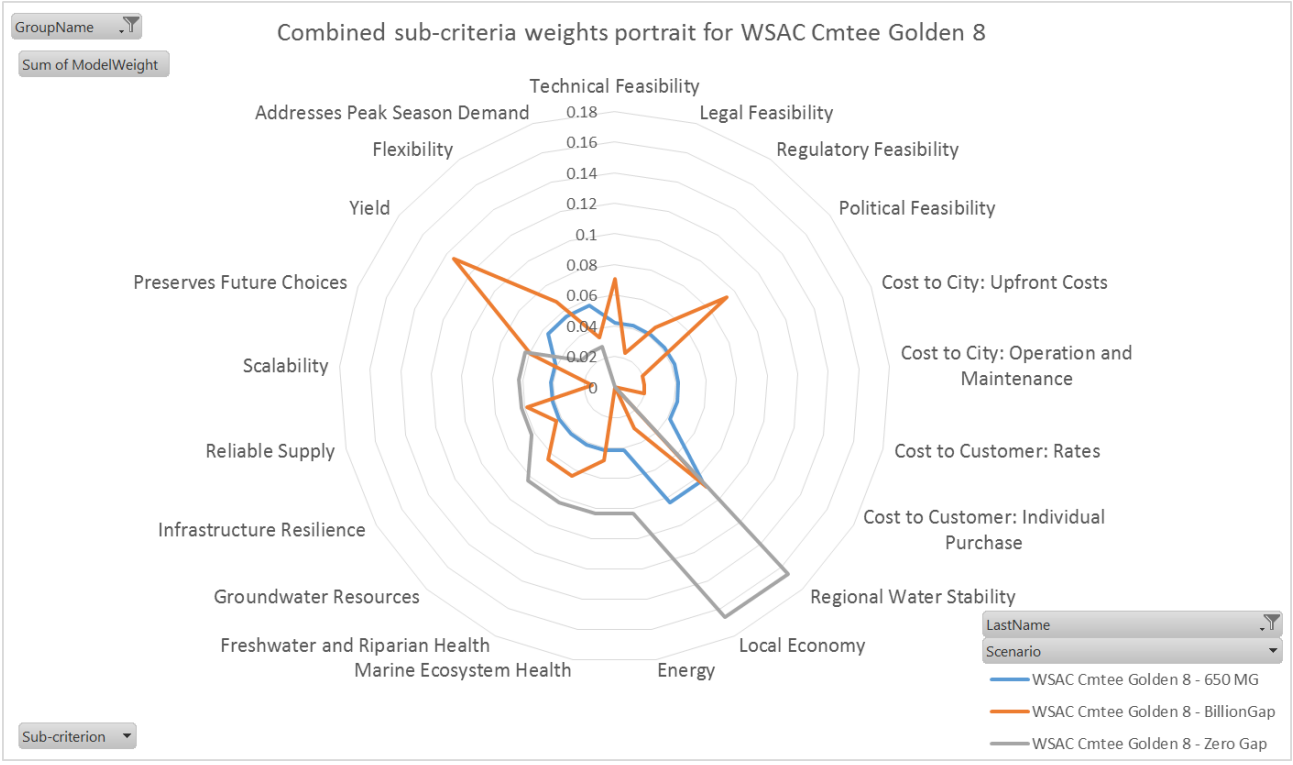
Cmtee Member 7



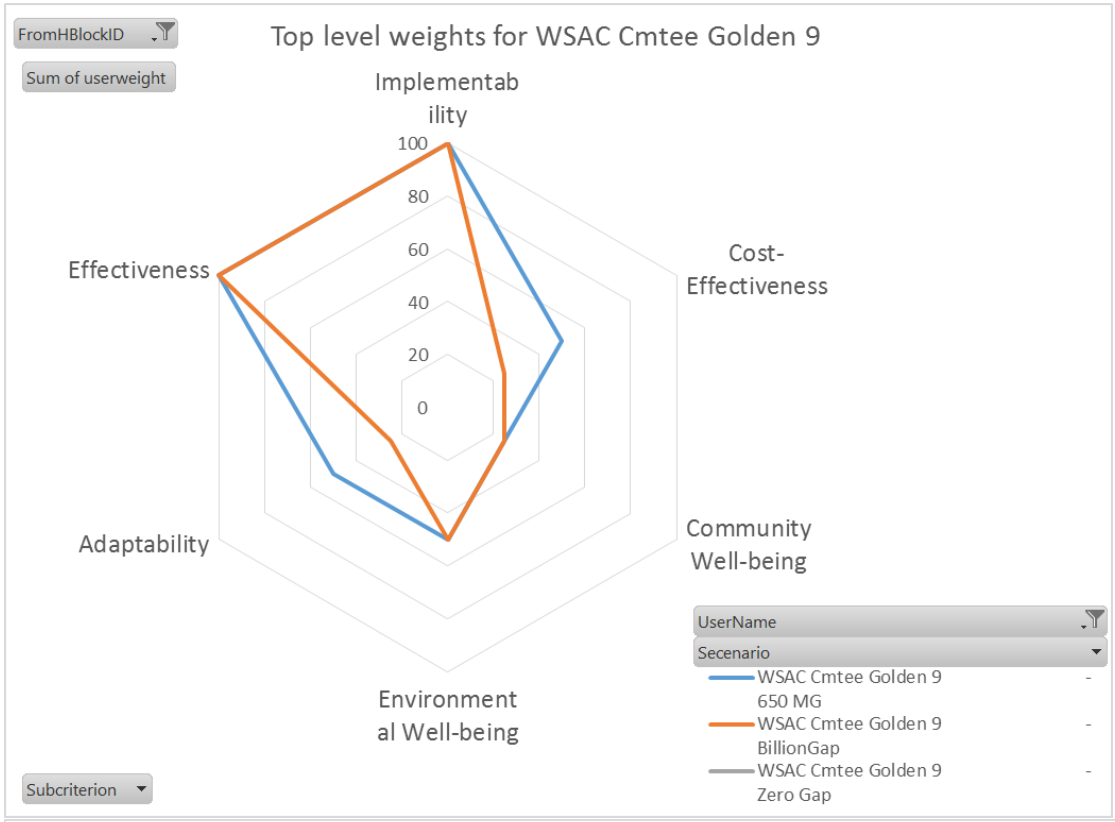


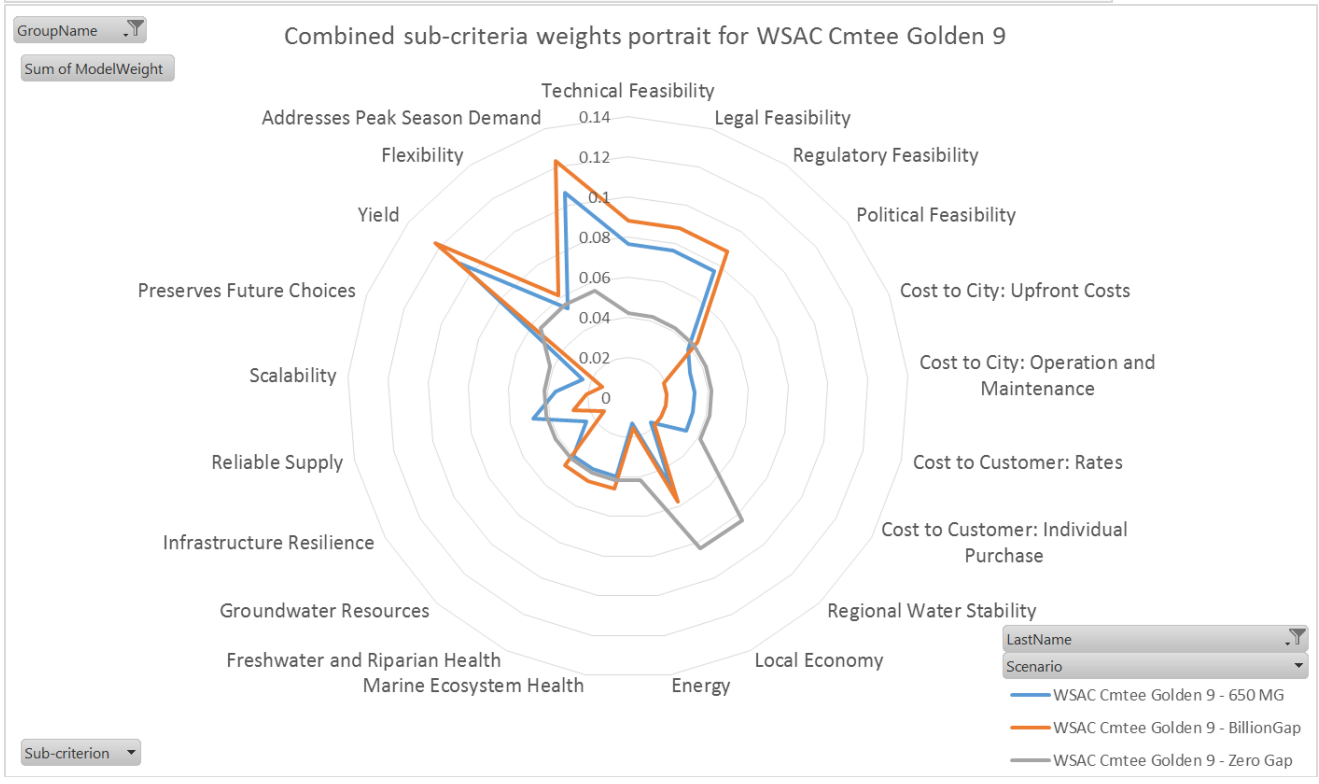
Cmtee Member 8



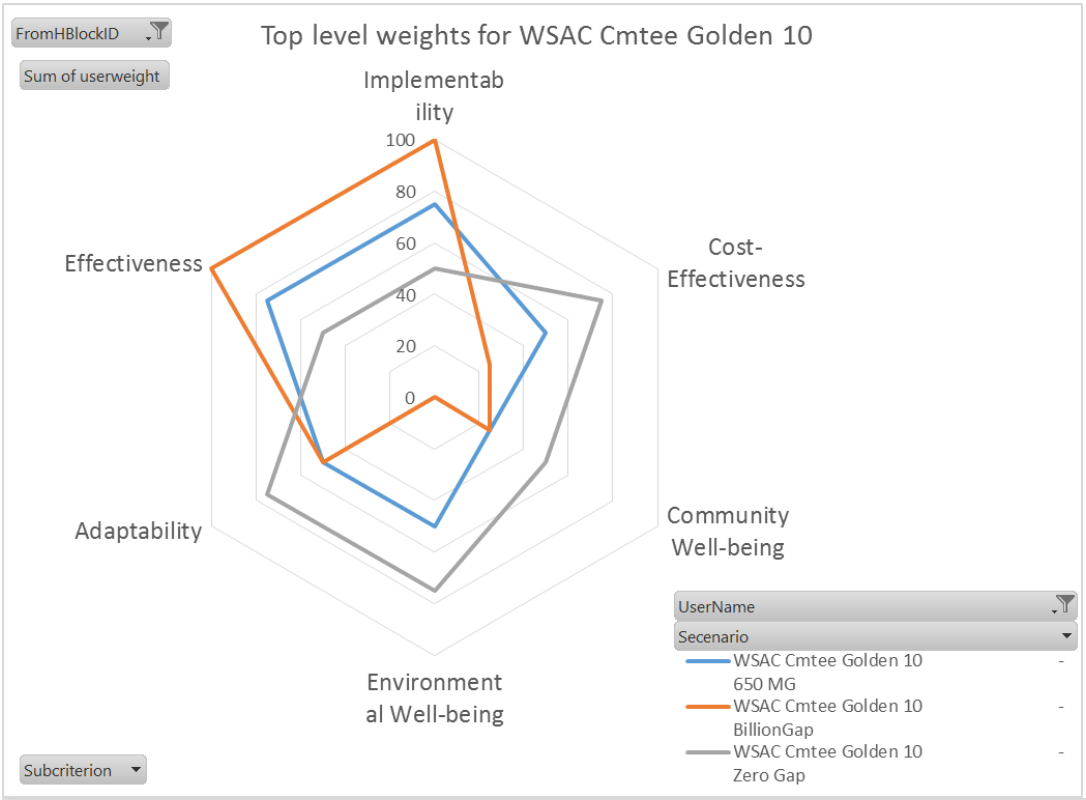


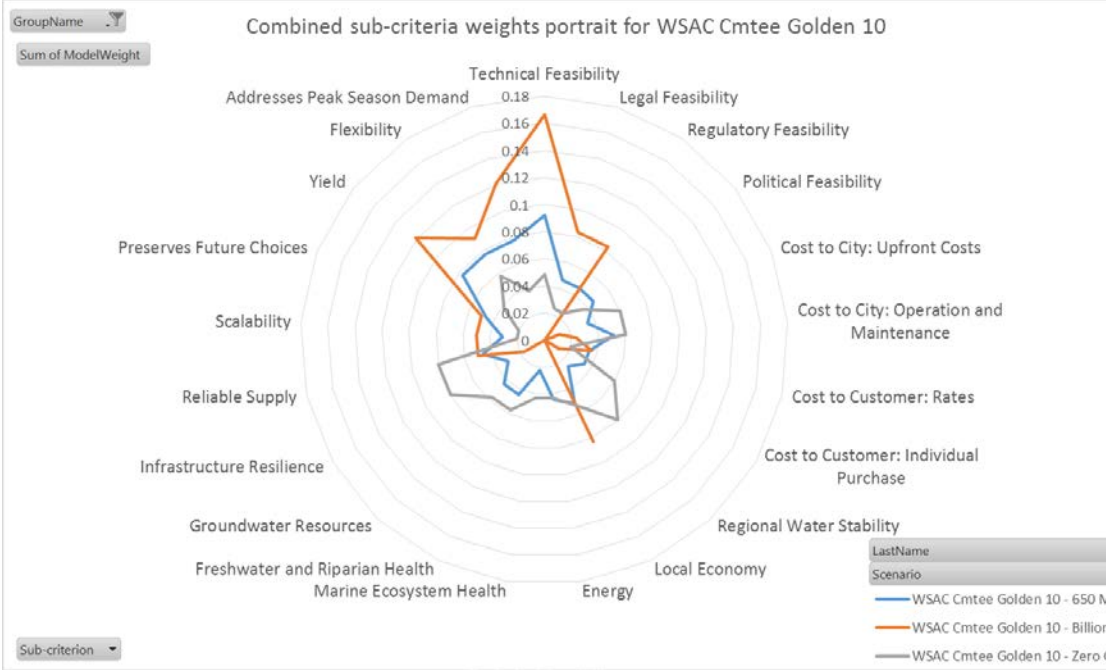
Cmtee Member 9





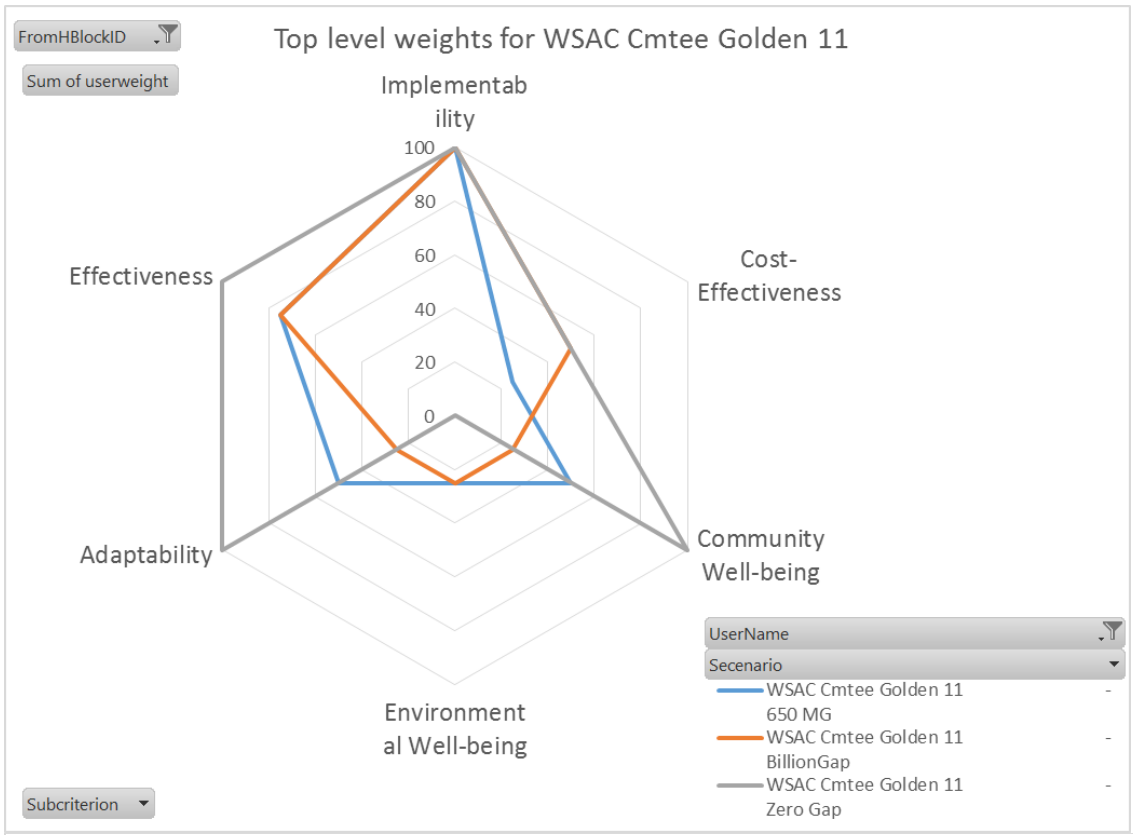
Cmtee Member 10

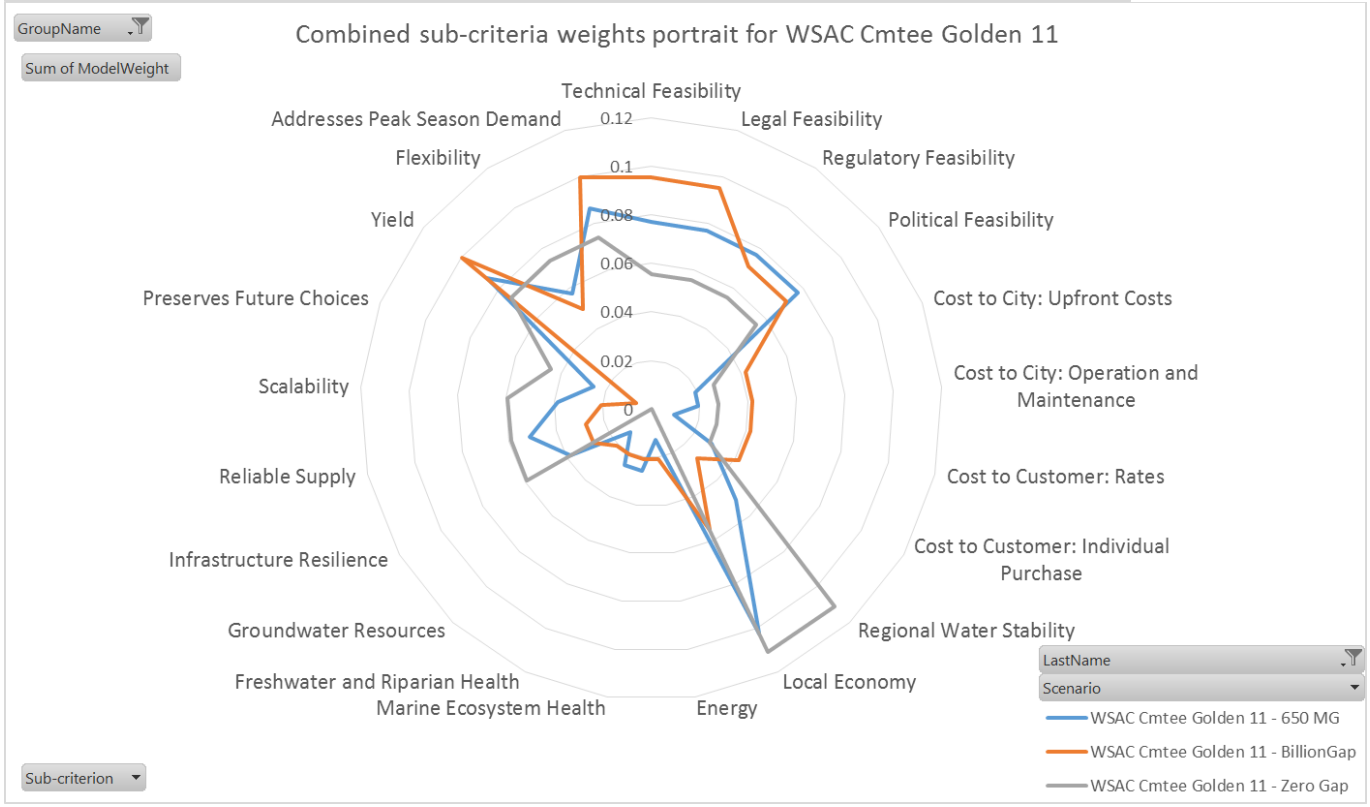




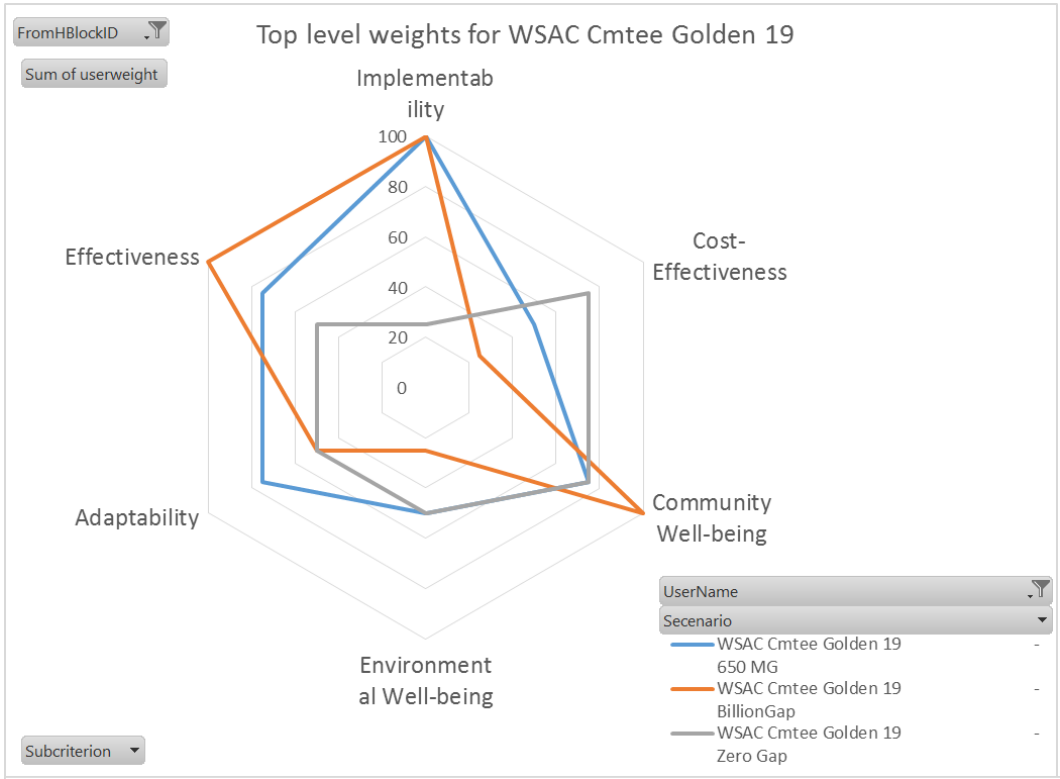
Several Ctte Members gave less weight to the environment as the gap increased. (The same pattern is apparent for "local economy.")

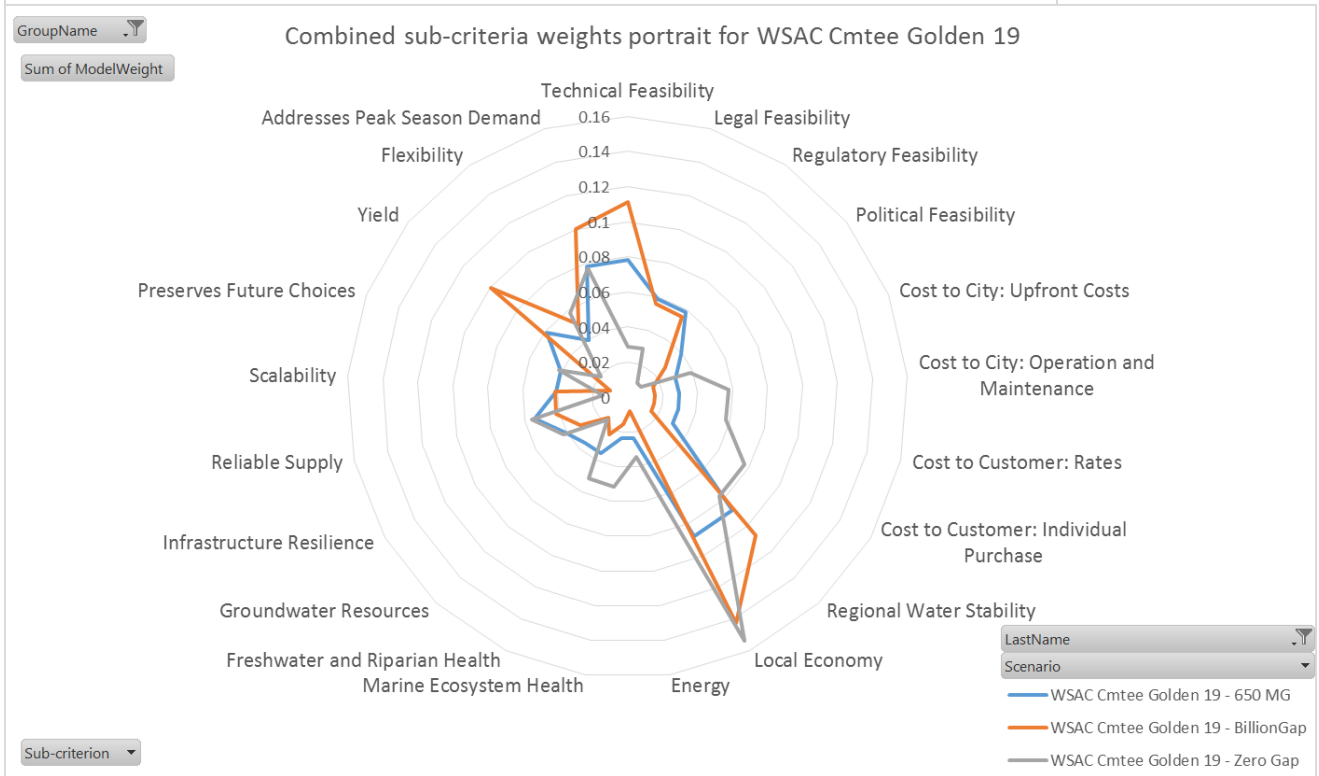
Cmtee Member 11



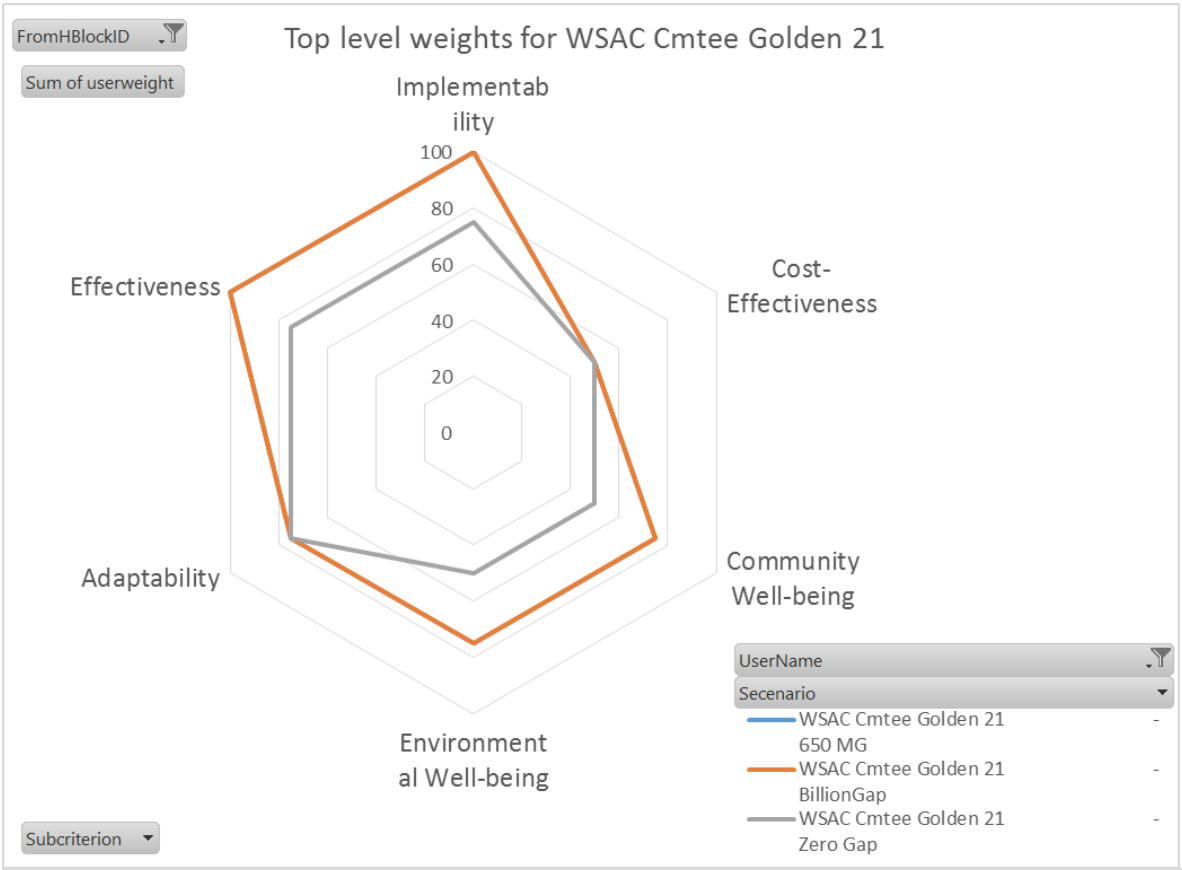


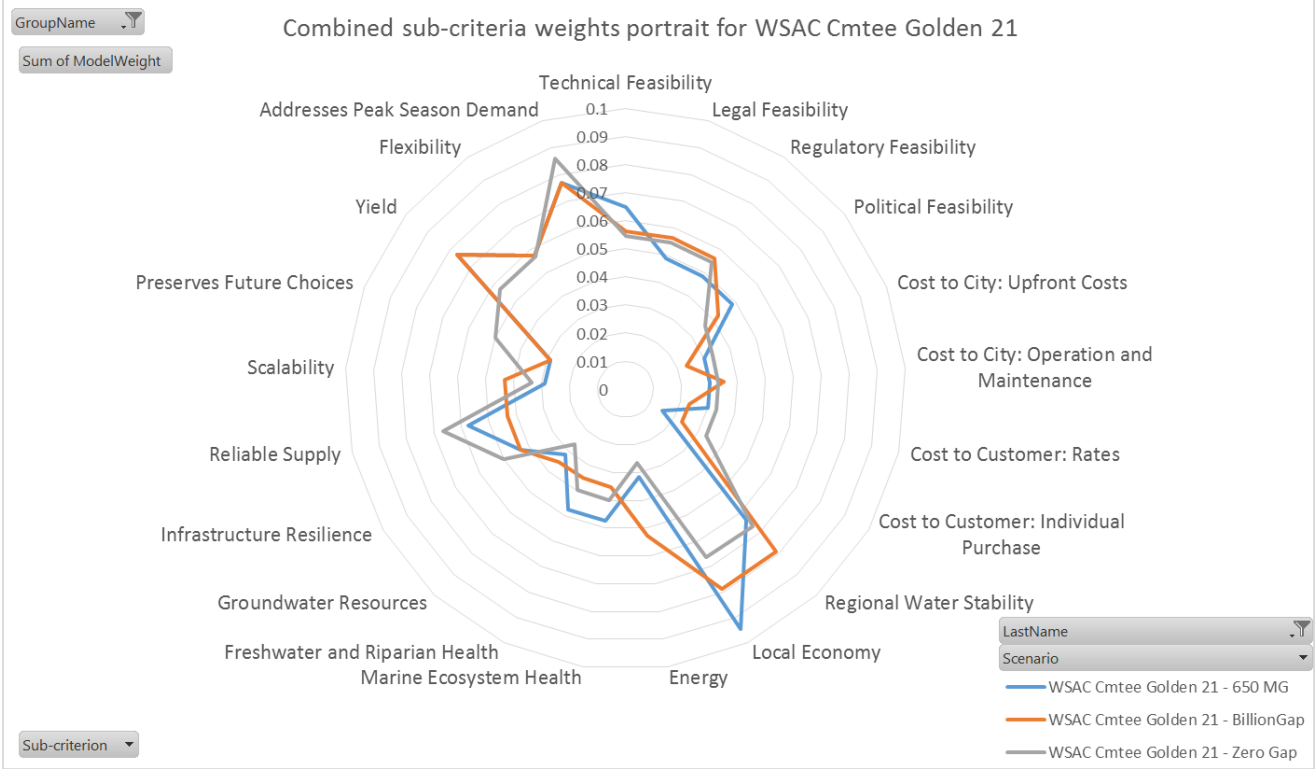
Cmtee Member 19



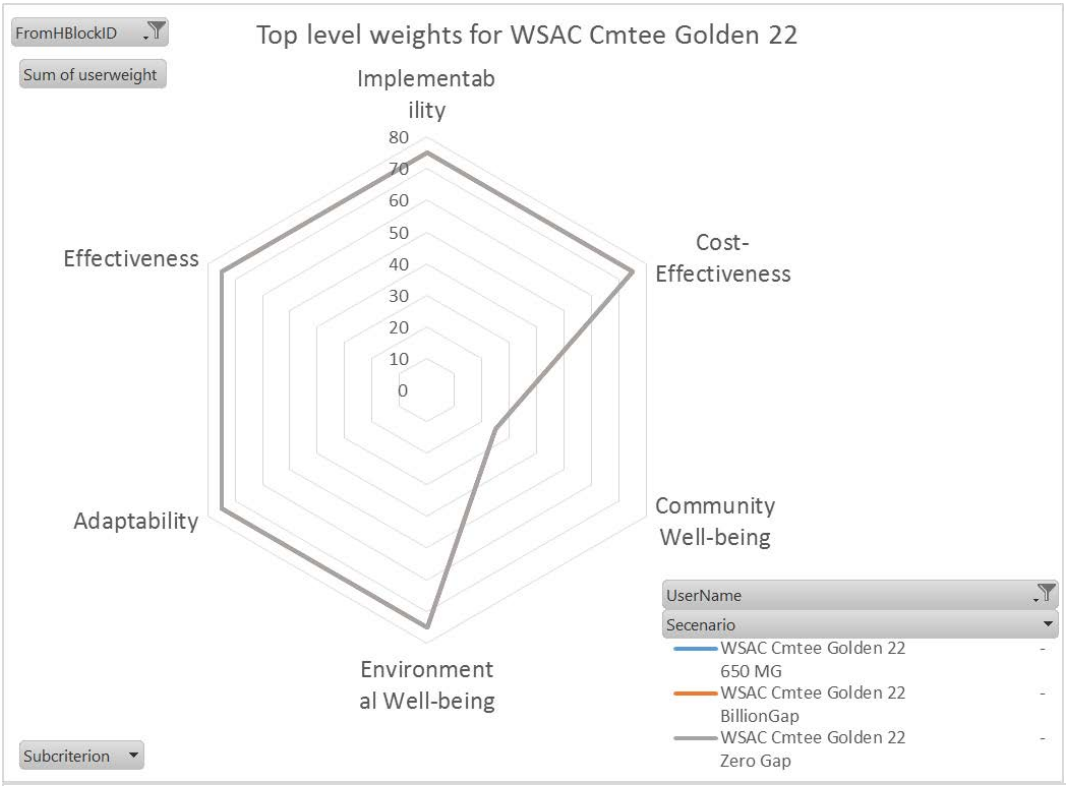


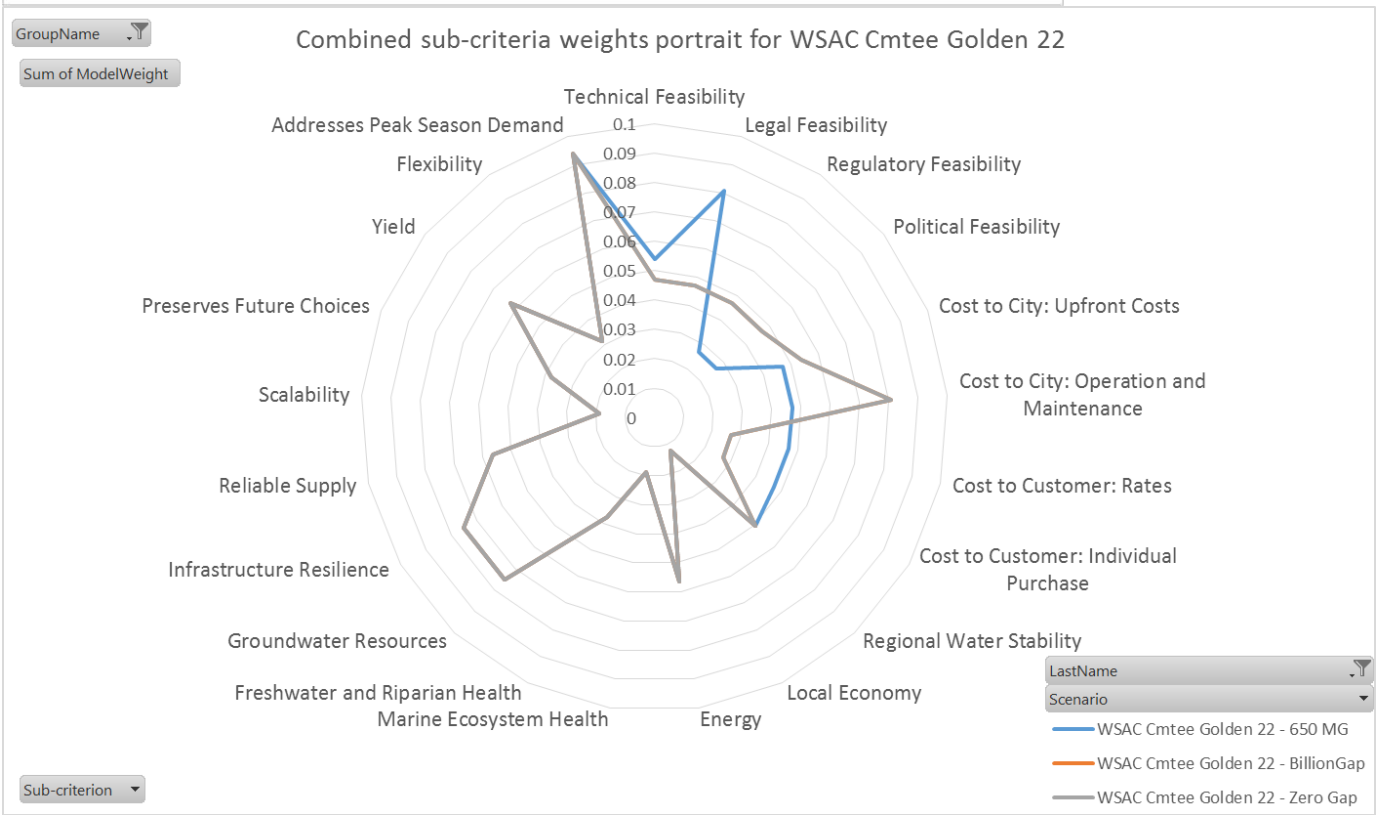
Cmtee Member 21



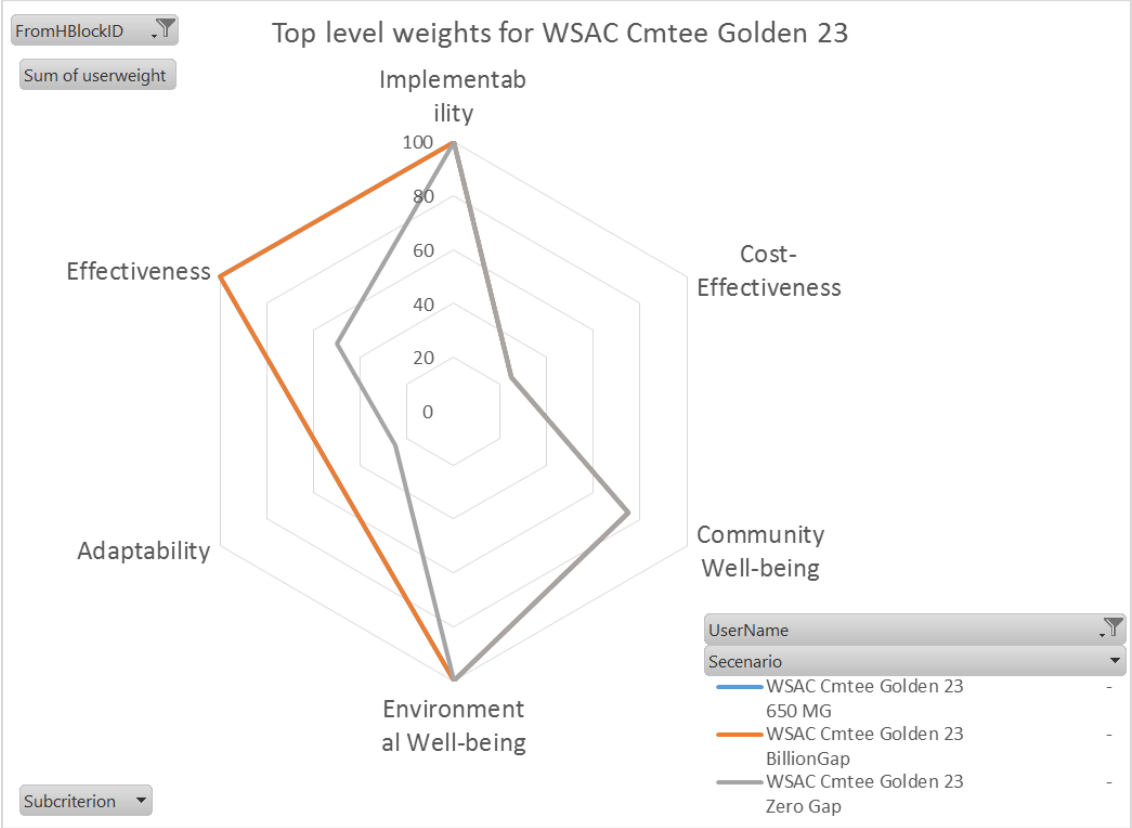


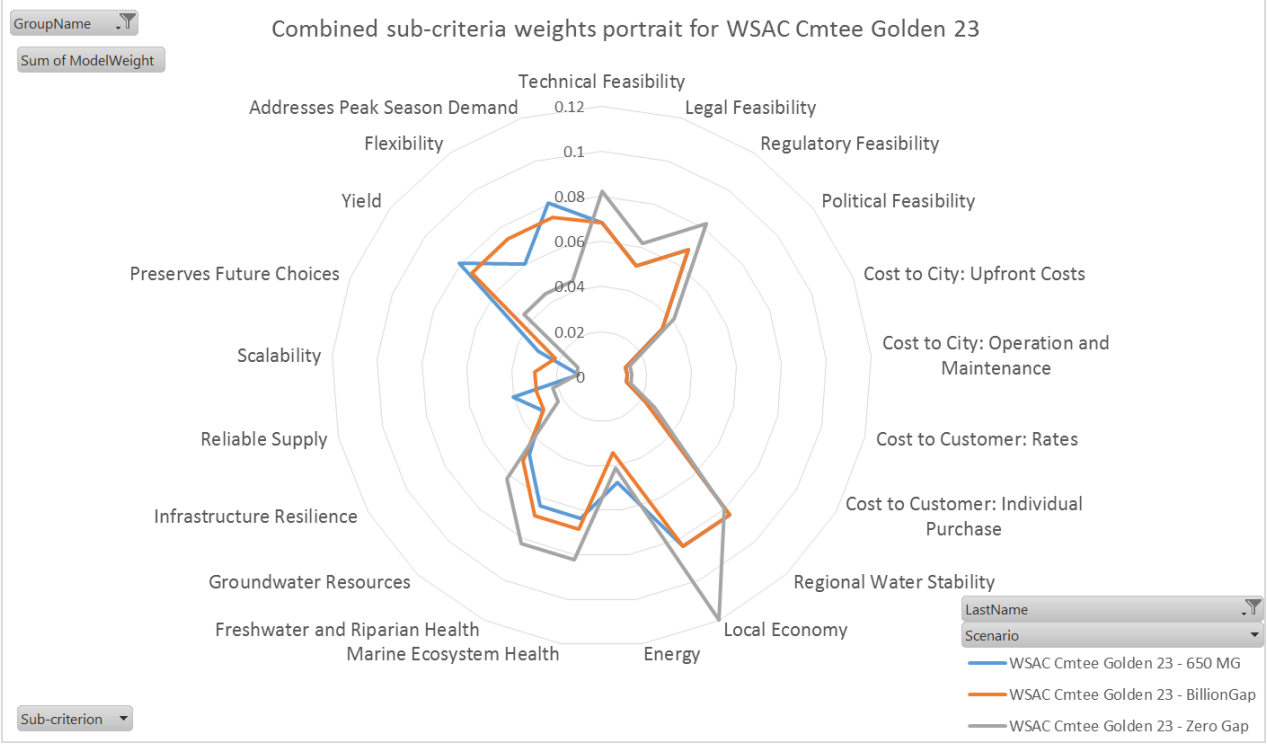
Cmtee Member 22



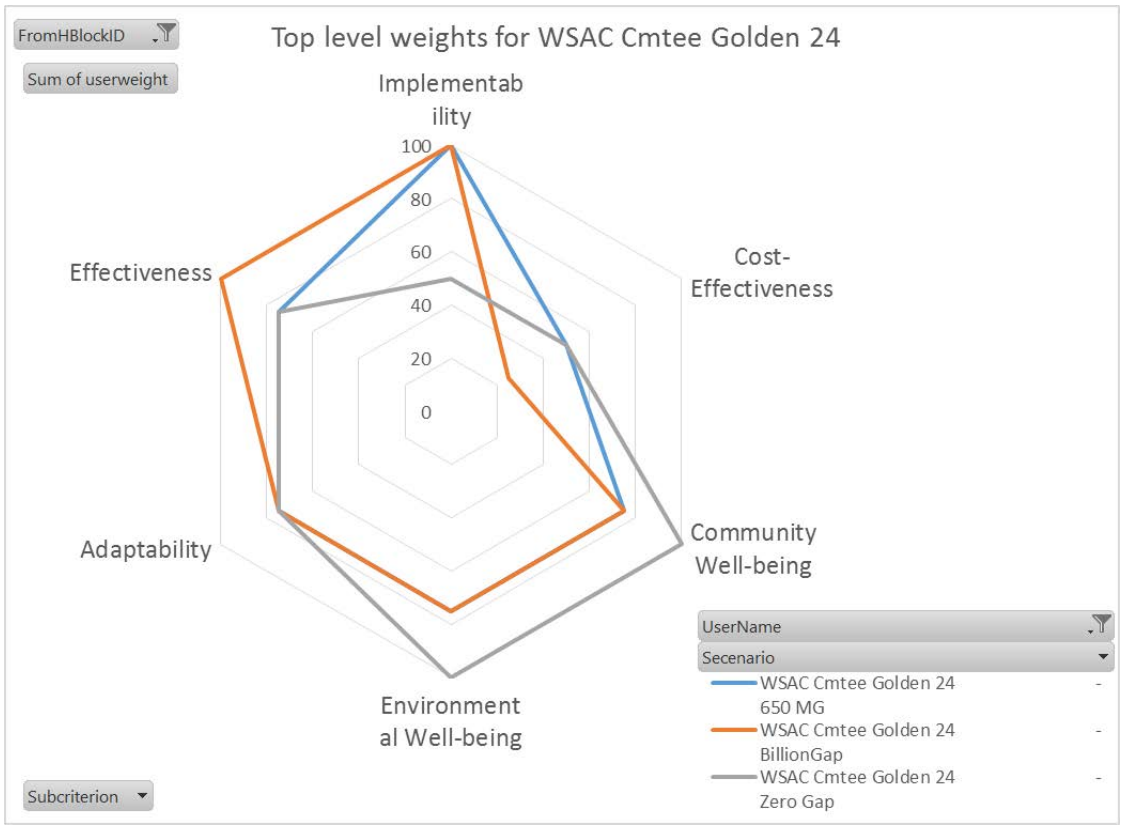


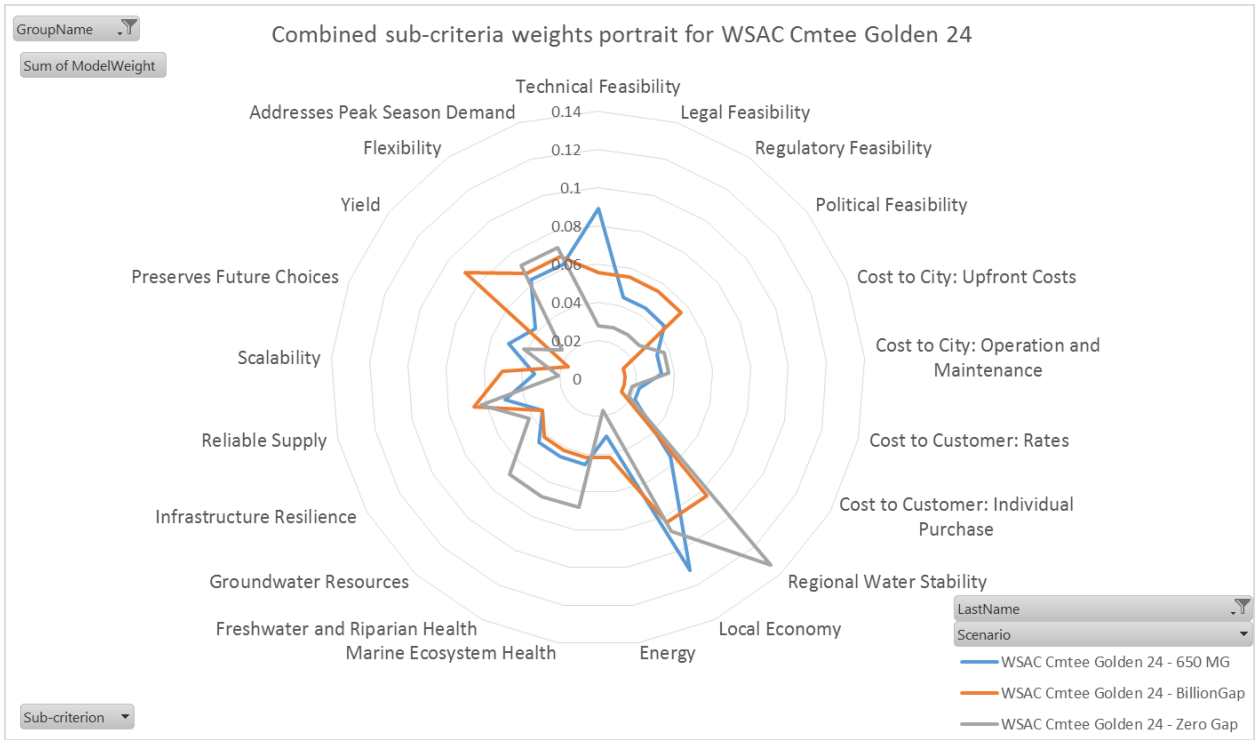
Cmtee Member 23



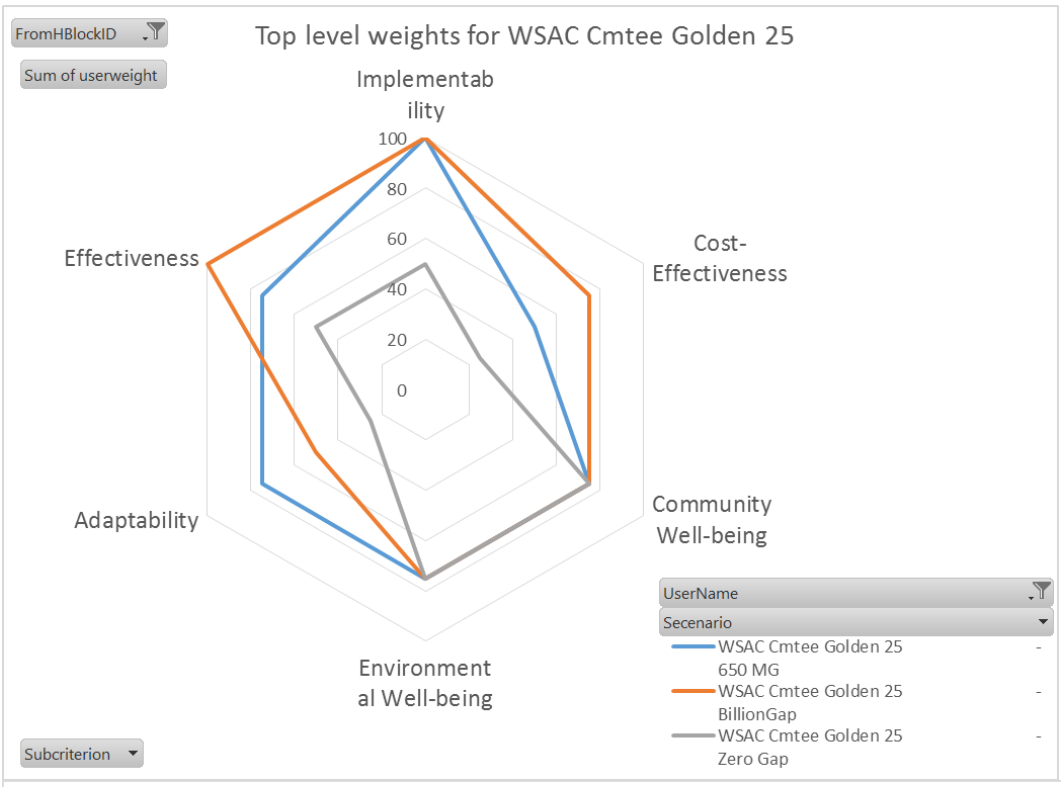


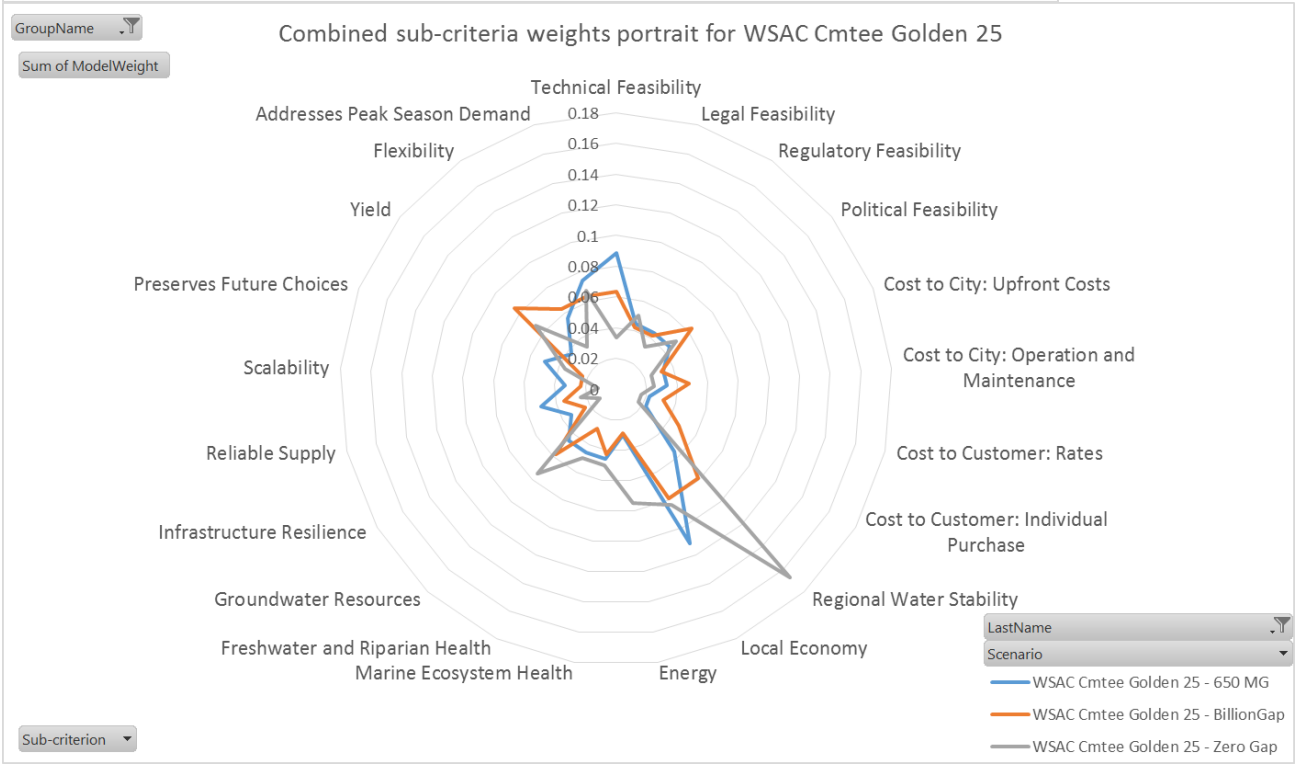
Cmtee Member 24





Cmtee Member 25





Appendix A: Base Numbers

General

Unless specifically noted, all graphs and tables reflect data from all 14 Cmtee members based on 14 unique "Golden" tokens, and only those 14 unique tokens.

Change Activity

When a Cmtee member changes a weight or ratings to a value other than the default (weights or Political/legal Feasibility) or City ratings, I detect that and call it a a change.

Definition: % change of weights or ratings is the ratio of the weights or ratings members changed divided by all the weights or ratings that were there to change.

Weights to change:

Editable weights in 1 model = 6 + 4 + 4 +2 + 4 +4 + 3 = 27
Number of Cmtee Members = 14
Number of Scenarios = 3
Total number of weights that could be changed = 3 x 14 x 27 = 1,134
Number of weights each member could change = 3 x 27 = 81

Ratings to change:

Number of Proposals = 12
Number of Sub-criteria = 21
Editable Ratings in 1 model = 12 x 21 = 252
Totals Ratings that could be changed = 3 x 14 x 252 = 10,584 (!)
Number of Ratings each member could change = 3 x 252 = 756

Important to note: if a member happens to agree with the default or city ratings, or default weight value, so doesn't enter a different value, it won't be recorded as a change. So if we see a detected % change at 80-90%, that likely indicates a completely rated/weighted set.