From:	Andrew Springett
To:	Andrew Springett
Subject:	Doc 4.11: FW: FW: Wealth transfers in the TPM CBA
Date:	Thursday, 26 September 2019 2:59:22 PM

From: Brian Bull [mailto:bbull1@hotmail.com]
Sent: Thursday, 21 March 2019 11:05 AM
To: Tim Sparks
Cc: john@sense.partners; Jean-Pierre de Raad
Subject: Re: FW: Wealth transfers in the TPM CBA

> There is a very large effect in the model from changes in the sequencing of investment in generation. This changes the sequencing of transfers that occur to-and-from consumers and producers in the electricity market ... This does raise a reasonably compelling case for excluding the changes in generation prices from welfare calculations.

On first glance this makes sense - although I absolutely agree that any change in generation or transmission _costs_ should be included in the economic benefit calculation. If the proposal leads the electricity sector to supply demand at a lower cost while meeting the same standard of reliability, then that to me is totally admissible.

Cheers
BB

From: Tim Sparks <Tim.Sparks@ea.govt.nz>
Sent: Wednesday, March 20, 2019 6:50 PM
To: Brian Bull
Cc: john@sense.partners; Jean-Pierre de Raad
Subject: FW: FW: Wealth transfers in the TPM CBA

Brian – see John's e-mail below.

From: John Stephenson [mailto:john@sense.partners]
Sent: Thursday, 21 March 2019 10:41 AM
To: Tim Sparks
Cc: Jean-Pierre de Raad
Subject: Re: FW: Wealth transfers in the TPM CBA

Thanks.

The question of transfers is an interesting one. It raises several questions e.g. When are reductions in market prices a transfer that should be ignored in a cost benefit analysis? And when are they benefits that arise from the alleviation of a distortion that results in a more efficient allocation of resources both statically and dynamically (note that consumer demand is the ultimate arbiter of efficiency of resource allocation, as long as consumers face the costs of serving their demand)?

There is a very large effect in the model from changes in the sequencing of investment in generation. This changes the sequencing of transfers that occur to-and-from consumers and

producers in the electricity market, over time through investment cycles (when capacity is low, producer rents increase and invite investment and then capacity increases and producers lose their rents and consumers win and then demand grows and rents reappear etc...). This does raise a reasonably compelling case for excluding the changes in generation prices from welfare calculations. But I wonder if the same reasoning would be acceptable if we were only talking about the costs of bringing forward investment in generation or in transmission, rather than the net benefits to consumers of bringing forward investment in transmission or generation? Having said all that, maybe we just need to be a bit more sophisticated in our treatment.

I don't quite follow the $10 example. If all prices fell by $10 then people could e.g. (a) work less and enjoy the same consumption benefits (b) save and invest in something without foregoing any of their consumption benefits (c) buy more of something else to use/consume. So even if they have zero elasticity in the market in question there is still scope for a substantial welfare improvement - depending on why the price changed.

On Thu, 21 Mar 2019 at 09:19, Tim Sparks <Tim.Sparks@ea.govt.nz> wrote:

> John
>
> Brian has raised some questions about the allocative efficiency issue – see below and attached. We don't think the example in the excel sheet is right: as I understand it the similarity between these two numbers is coincidental, as they are measuring different effects. However, it might be useful for you to take a look. Might also be useful for you to consider the hypothetical in his e-mail below (Suppose all prices in the model decreased by $10/MWh…)
>
> Tim
>
> ---
>
> **From:** Brian Bull [mailto:bbull1@hotmail.com]
> **Sent:** Thursday, 21 March 2019 5:08 AM
> **To:** Tim Sparks
> **Cc:** Jo Mackay
> **Subject:** Re: Wealth transfers in the TPM CBA
>
> Hello Tim
>
> I wanted to back the comments below with some actual numbers from the scenarios. I have used the latest version I hold of the 'AOB_All_major_capex' run (which is close to being a base case). I have aimed to identify the wealth transfer from generators to consumers in this scenario and to show that it is numerically quite similar to the consumer welfare effect calculated by Sense - my point being that I believe the latter is largely driven by the former.
>
> Please see attached spreadsheet - findings in J35:J44 - hopefully self explanatory.
>
> You might like to circulate the spreadsheet before the meeting, if you think its analysis

adds some value.

I hope Sense will not be offended by me 'caricaturing' their analysis in this way - no offence is intended for sure - I am just trying to reduce their complex calculations to a simplistic version that I can actually get my head around.

Cheers
BB

From: Brian Bull <bbull1@hotmail.com>
Sent: Wednesday, March 20, 2019 8:17 AM
To: Tim Sparks
Subject: Re: Wealth transfers in the TPM CBA

Hi Tim

I remain of the view that the 'CBA' does count wealth transfers as net benefits.

To see this, consider that the consumer welfare used is defined as the amount of money which consumers would be willing to pay to receive the proposal rather than the status quo. Consumers wish to receive wealth transfers and would be willing to pay an equal amount to do so; thus, a wealth transfer of $X translates more or less directly to a consumer welfare increase of $X.

Perhaps an example will help. Suppose all prices in the model decreased by $10/MWh, for all consumers, at all times, in all years. Suppose further that all demand was perfectly inelastic and so there was no corresponding increase in quantity.

- Is there an allocative efficiency gain? Clearly not, with no elasticity and no changes to Q. The net economic benefit is nil.
- Is there an increase in the Sense consumer welfare measure? There sure is - billions of dollars PV!

I'm happy to attend the meeting - a bit reluctant to lead the charge on this as a non-economist - perhaps you need to wheel out another PhD?

Cheers
BB

--

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