

3 September 2018

*News Release*

**COMMENCEMENT OF 2018 FARE REVIEW EXERCISE**

The Public Transport Council (PTC) has commenced the annual 2018 Fare Review Exercise (FRE).

2. Over the past five years, more than 1000 new buses were introduced through the Bus Service Enhancement Programme and Bus Contracting Model, and more than 200 new trains were injected to augment the public transport capacity. The costs of which were borne by the Government. The Government has also committed to spending \$5 billion to subsidise public bus services, \$4 billion to renew rail operating assets and an additional \$20 billion on new public transport civil infrastructure over the next five years.

3. The PTC has reduced fares by a total of 8.3% for the previous three consecutive years, largely due to the continued double-digit dip in energy prices<sup>1</sup>. Energy prices in 2017, which will be factored in the fare formula<sup>2</sup> this year, rebounded by 26.2% over the previous year. The other macroeconomic price indices in the fare formula have also increased over the past year. The Wage Index, a proxy for the wage growth of public transport workers like bus captains and rail staff went up by 3%, while the core Consumer Price Index rose by 1.5%, the highest increase in three years. The Network Capacity Factor (NCF) of 3% balances commuter demand and public transport capacity enhancements and reflects the effort to provide commuters with more convenient and less crowded rides over the last year. More than two-thirds of the NCF was contributed by bus capacity improvements.

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<sup>1</sup> The Energy Index was -15.3% in 2015 FRE, -35.8% in 2016 FRE and -26.7% in 2017 FRE.

4. Based on the new fare formula applicable from 2018 to 2022 and taking into account the carry-over quantum of -3.2% from the 2017 FRE, the maximum allowable fare adjustment quantum to be considered for 2018 FRE is 4.3%. Public transport operators may submit their fare applications to the PTC by 1 October 2018 for consideration.

5. The PTC will deliberate on these matters and announce its decision on the fare adjustment quantum in the last quarter of 2018. Ultimately, the PTC will continue to keep public transport fares affordable to commuters, while ensuring that the public transport system remains financially sustainable.

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## Annex

### COMPUTATION OF 2018 MAXIMUM ALLOWABLE FARE ADJUSTMENT QUANTUM

*Fare formula to be applied from 2018 to 2022*

$$\text{Maximum Fare Adjustment}^3 = 0.5 \text{ cCPI} + 0.4 \text{ WI} + 0.1 \text{ EI} - 0.1\% + \text{NCF}$$

Index	2017 Value	Weightage	Value in Fare Formula
Core Consumer Price Index	1.5%	50%	0.8%
Wage Index	3.0%	40%	1.2%
Energy Index	26.2%	10%	2.6%
Productivity Extraction	-	-	-0.1%
Network Capacity Factor			3.0%
Quantum Carried-over from the 2017 Exercise			-3.2%
<b>2018 Maximum Allowable Fare Adjustment Quantum</b>			<b>4.3%</b>

<sup>3</sup>

- cCPI = Year-on-year change in **core Consumer Price Index**;
- WI = Year-on-year change in **Wage Index** measured by the Average Monthly Earnings (National Average), adjusted for any change in the employer's CPF contribution rate;
- EI = Year-on-year change in **Energy Index** which is a composite index derived from diesel price and electricity tariff; and
- NCF = Year-on-year change in **Network Capacity Factor** which measures capacity provision relative to passenger demand for the entire public transport system;
- 0.1% = **Productivity Extraction Factor** component that is based on half of the productivity gain achieved by the PTOs.

## COMPUTATION OF 2018 NCF QUANTUM

The Network Capacity Factor (NCF) was introduced to the fare formula, following PTC's review concluded in March 2018, as a fair and transparent way to take into account changes in the capacity of our public transport network relative to commuter demand. The NCF allows the fare formula to account for changes in the quantity of resources consumed, alongside the price of resources deployed to run our public transport system as measured by the price indices in the previous formula.

$$NCF = (0.5 \times \text{Train NCF}) + (0.5 \times \text{Bus NCF})$$

Mode		2016	2017
Train	Operated place-km*	46.3 bil	46.9 bil
	Passenger-km*	10.1 bil	10.1 bil
	<b>ΔNCF for train</b>	1.8%	
Bus	Operated place-km	32.9 bil	33.6 bil
	Passenger-km	5.6 bil	5.5 bil
	<b>ΔNCF for bus</b>	4.3%	
<b>2018 NCF Quantum</b>		<b>3.0%</b>	

*\*Train figures exclude the changes in capacity and usage of new rail lines with less than 18 months of revenue service to allow time for ridership to stabilise and reduce volatility of the NCF.*

22 March 2018

*News Release*

**2018 FARE FORMULA REVIEW AND ENHANCED TRANSFER RULES TO  
ADAPT TO CHANGING PUBLIC TRANSPORT LANDSCAPE**

The Public Transport Council (PTC), an independent body that regulates public transport fares, is making enhancements to transfer rules to provide more flexibility to commuters. In addition, PTC is revising the fare formula to ensure that fares keep pace with changes in the public transport industry's cost structure. This formula forms the basis for the PTC's deliberation at each year's fare review exercise, where the PTC grants fare adjustments. The fare formula review is typically done once every five years, and the 2017/2018 review was completed after a year-long consultation with commuters, operators and industry experts.

**Ensuring our Transfer Rules and Fare Formula Remain Relevant**

2 Over the past few years, the public transport landscape has evolved significantly to bring greater convenience to commuters.

3 First, public transport capacity has increased by around 25% from 2012 to 2017. In particular, more than 1,000 new buses have been introduced through the Bus Service Enhancement Programme and Bus Contracting Model since 2012. Over the same period, around 200 new trains were injected into the network to augment the capacity of existing rail lines.

4 Second, our public transport network has become denser with the addition of new lines and extensions, which have led to an increase in the length of our rail network by 74km. A denser network provides more network resilience and opens up more travel connections and routes for commuters. For example, some commuters now have the option of walking between stations to get onto another nearby rail line.

5 These capacity upgrades and network expansions are necessary and have been welcomed by commuters. However, they come at a cost. To keep pace with these changes, PTC has reviewed the transfer rules and fare formula to ensure they remain relevant for our public transport system and commuters.

### **More Flexible Transfer Rules**

6 With more rail lines opening in the coming years, there will be more instances where commuters may save time by using a combination of rail rides to reach their destination. These could include making a walking transfer between nearby stations and continuing their journey with another rail ride on a different rail line.

7 Under the current transfer rules, commuters making such transfers will incur additional boarding charges. To facilitate more efficient and seamless public transport journeys, the PTC has decided to remove the additional boarding charges for commuters who make rail transfers between any two different MRT/LRT stations within 15 minutes.<sup>4</sup> All other existing transfer rules will remain.<sup>5</sup>

8 With these changes, at least 6,000 daily journeys can have shorter travel times and lower fares<sup>6</sup>. We expect even more commuters to benefit eventually as they adjust their current travel routes to take advantage of the new transfer rules. The new transfer rules will take effect together with the fare adjustments for the 2018 Fare Review Exercise at the end of this year.

### **A More Responsive Fare Formula**

9 To guide PTC's annual fare review exercises, the fare formula needs to be nimble and responsive to industry cost changes as our public transport landscape undergoes

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<sup>4</sup> For an example of how fares are charged for rail transfers under the new transfer rules, refer to Annex C.

<sup>5</sup> Refer to Annex D for the transfer rules.

<sup>6</sup> Exact travel time and fare would vary depending on travel patterns. For examples of how commuters may save time and/or fares under the new transfer rules, refer to Annex E.

transformation. It is in this spirit that PTC will introduce a Network Capacity Factor (NCF) into the fare formula, to better reflect the cost movements due to changes in public transport network capacity (e.g. running more buses and trains over longer distances) and commuter usage (e.g. more passengers taking more trips on buses or trains). PTC will also update the weights for the price indices and the Productivity Extraction Factor (PEF) in the existing formula to reflect the latest industry cost structure.

10 The revised fare formula, to be applied from 2018 to 2022, is as follows:

$$\text{Maximum Fare Adjustment}^7 = 0.5 \text{ cCPI} + 0.4 \text{ WI} + 0.1 \text{ EI} - 0.1\% + \text{NCF}$$

#### *Network Capacity Factor (NCF)*

11 Between 2012 and 2016, annual operating costs increased by over \$900 million. Annual fare revenue increased by around \$230 million over the same period, mostly due to ridership growth. However, this only covered about 25% of the increase in annual operating costs. In fact, fares were reduced for the past three consecutive years, mainly due to subdued energy prices. To cover the operating expenditure shortfall, the Government has stepped in to provide substantial subsidies. However, a widening gap between cost and fares is not sustainable for any public transport network. To address this issue, PTC will therefore introduce a NCF<sup>8</sup> in the fare formula to better reflect cost movements due to public transport capacity changes and commuter usage.

<sup>7</sup> Details on the various components of the formula are as follows:

- cCPI = Year-on-year change in **core Consumer Price Index**;
- WI = Year-on-year change in **Wage Index** measured by the Average Monthly Earnings (National Average), adjusted for any change in the employer's CPF contribution rate;
- EI = Year-on-year change in **Energy Index** which is a composite index derived from diesel price and electricity tariff; and
- NCF = Year-on-year change in **Network Capacity Factor** which measures capacity provision relative to passenger demand for the entire public transport system;
- 0.1% = **Productivity Extraction Factor** component that is based on half of the productivity gain achieved by the PTOs.

<sup>8</sup> For more details on how the NCF is calculated, refer to Annex A.

### *Fare Review Exercise 2018*

12 The revised fare formula will apply from the 2018 Fare Review Exercise onwards. As with past years, the 2018 fare adjustment quantum will be finalised and announced at the third quarter of this year.

13 PTC Chairman, Richard Magnus, said, “Our public transport landscape is evolving at a tremendous pace to improve commuter service standards. To remain relevant, our fares, including the transfer rules, have to be adjusted to the market dynamics as well as commuter needs. This is critical in ensuring the long term financial sustainability, ease and seamlessness of our public transport network.”

#### **Annex A: Comparison of 2013 and 2018 Fare Formula and Calculation of the Network Capacity Factor (NCF)**

#### **Annex B: Revised Cost Structure**

#### **Annex C: Examples of Fare-Charging under Multiple Rail Transfer**

#### **Annex D: Distance Fares Transfer Rules**

## Annex A

### COMPARISON OF 2013 AND 2018 FARE FORMULA

The price indices (i.e. core Consumer Price Index, Wage Index and Energy Index) in the previous formula will be retained as they remain relevant. PTC will update their weights to reflect the latest public transport industry cost structure. The PEF, which allows commuters to share equally in the public transport industry's productivity gains (but not productivity losses), will also continue to be applied in the revised formula.

Component	2013 Fare Formula	2018 Fare Formula	Key Changes
<b>Core Consumer Price Index (cCPI)<sup>9</sup></b>	0.4 cCPI	0.5 cCPI	<ul style="list-style-type: none"> <li>Increase in weightage of 0.1 cCPI</li> </ul>
<b>Wage Index (WI)<sup>10</sup></b>	0.4 WI	0.4 WI	<ul style="list-style-type: none"> <li>No change</li> </ul>
<b>Energy Index (EI)<sup>11</sup></b>	0.2 EI	0.1 EI	<ul style="list-style-type: none"> <li>Decrease in weightage of 0.1 EI</li> </ul>
<b>Productivity Extraction (PE)<sup>12</sup></b>	Half of operators' productivity gains (estimated to be 0.5%)	Half of operators' productivity gains (estimated to be 0.1%)	<ul style="list-style-type: none"> <li>No change in formula. Despite the rapid workforce expansion to support the capacity enhancements between 2012 and 2016, the industry managed to achieve average productivity gains of 0.2%. Half of this, or 0.1%, will be shared with commuters through the PEF from 2018 to 2022.</li> </ul>
<b>Network Capacity Factor<sup>13</sup></b>	NIL	<ul style="list-style-type: none"> <li>New component. See more details below.</li> </ul>	

<sup>9</sup> Change in core Consumer Price Index over preceding year

<sup>10</sup> Change in average monthly earnings (annual national average) over the preceding year, adjusted to account for any change in the employer's CPF contribution rate

<sup>11</sup> Change in energy index (composite index of price changes in electricity and diesel) over the preceding year

<sup>12</sup> Share of public transport operators (PTO)'s productivity gains

<sup>13</sup> Measures the change in place kilometres (total distance covered by the operated bus and train trips multiplied by the corresponding bus and train capacities) per passenger kilometre (total distance travelled by each commuter within the public transport network) over the preceding year

## NETWORK CAPACITY FACTOR (NCF)

The Network Capacity Factor (NCF) is intended to track the cost movements due to public transport capacity changes and commuter demand going forward. It measures the change in place kilometres (total distance covered by the operated bus and train trips) per passenger kilometre (total distance travelled by each commuter within the public transport network) over the preceding year, with equal weightage to both bus and rail modes, as follows:

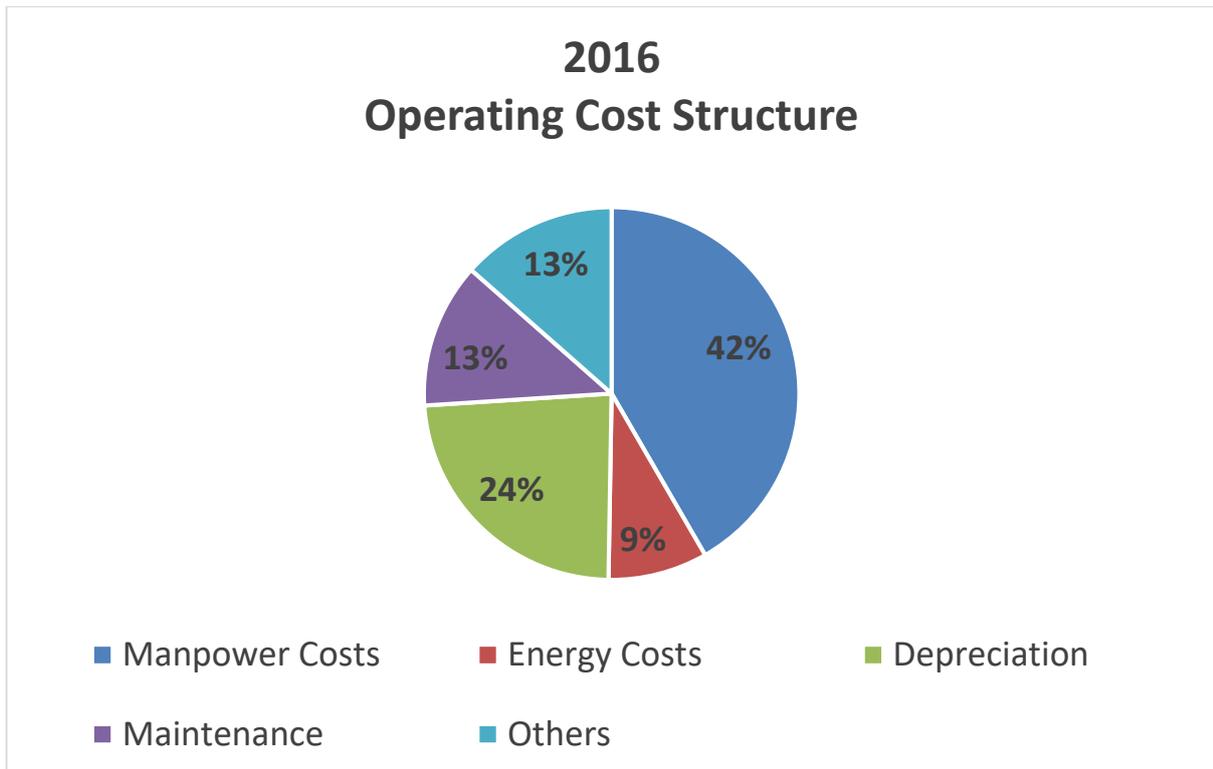
$$NCF = 0.5 \times \Delta \frac{\textit{Operated train place km}}{\textit{Passenger km for train}} + 0.5 \times \Delta \frac{\textit{Operated bus place km}}{\textit{Passenger km for bus}}$$

As the NCF is intended to track the structural changes to operating costs, the changes in capacity and usage attributed to new rail lines will only be computed into the NCF 18 months after they open for revenue service. This is to allow time for ridership to stabilise and to reduce volatility in the NCF.

PTC has the flexibility to spread the NCF across a period of time to smoothen its impact.

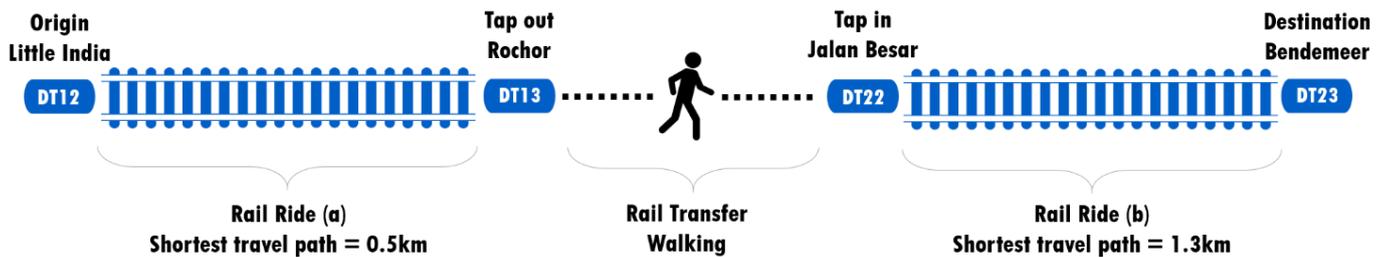
With the NCF, the widening gap between fares and costs due to capacity enhancements can be better contained going forward. Nevertheless, the Government will continue to provide significant subsidies for public transport services, estimated to be around \$9 billion over the next five years.

**REVISED COST STRUCTURE**



**EXAMPLE OF FARE CHARGING UNDER NEW TRANSFER RULES**

*Rail-Rail transfer: Little India to Bendemeer*



**Total distance: 1.8km**

**Total fare: \$0.77**

### EXAMPLES OF TIME AND/OR FARE SAVINGS WITH MULTIPLE RAIL TRANSFERS

<i>Rail-Rail journey: Little India to Bendemeer</i>	Current		With Multiple Rail Transfers
	Commuter makes one rail trip	Commuter makes two rail trips	
<b>Route</b>	Little India <b>DT12</b>  Bendemeer <b>DT23</b>	Little India <b>DT12</b>  Rochor <b>DT13</b> ...  ... Jalan Besar <b>DT22</b>  Bendemeer <b>DT23</b>	Little India <b>DT12</b>  Rochor <b>DT13</b> ...  ... Jalan Besar <b>DT22</b>  Bendemeer <b>DT23</b>
<b>Distance charged</b>	7.0km (Rail)	0.5km (Rail) 1.3km (Rail) Total = 1.8km	1.8km
<b>Estimated journey time</b>	20 mins	15 mins	15 mins
<b>Fare</b>	\$1.16	\$1.54	\$0.77

If a commuter currently makes one rail trip from Little India to Bendemeer, he will be able to see both time and cost savings of **5 minutes<sup>14</sup>** and **39 cents** respectively under the revised transfer rules.

If a commuter currently makes two rail trips from Little India to Bendemeer, he will be able to save **77 cents** under the revised transfer rules.

#### Rail-Bus-Rail journey: Marsiling to Bakau

<sup>14</sup> The exact time savings would vary with each commuter, depending on the time taken to make the rail-to-rail transfer.

	Current		With Multiple Rail Transfers
	Commuter makes one rail trip	Commuter makes two rail trips, interspaced with a bus trip	
<b>Route</b>	<p>Marsiling </p>  <p>Bishan </p>  <p>Serangoon </p>  <p>Sengkang </p>  <p>Bakau </p>	<p>Marsiling </p>  <p>Woodlands </p>  <p>Sengkang </p>  <p>Bakau </p>	<p>Marsiling </p>  <p>Woodlands </p>  <p>Sengkang </p>  <p>Bakau </p>
<b>Distance charged</b>	29.1km (Rail)	1.5km (Rail) 18.2km (Bus) 2.0km (Rail) Total = 21.7km	21.7km
<b>Fare</b>	\$1.90	\$2.49	\$1.78

If a commuter currently makes one rail trip from Marsiling to Bakau, he will be able to see both cost savings of **12 cents** under the revised transfer rules.

If a commuter currently makes a rail-bus-rail journey from Marsiling to Bakau, he will be able to save **71 cents** under the revised transfer rules.

## DISTANCE FARES TRANSFER RULES

	<b>Current Distance Fares Transfer Rules</b>	<b>Enhanced Distance Fares Transfer Rules</b>
Journey Time	All journeys must be within 2 hours of the first boarding	
Number of transfers	Maximum of 5 transfers can be made within a journey	
Rule for rail travel	One single entry and exit allowed for rail for each journey	Multiple rail transfers allowed with no additional boarding charges <i>(New)</i>
Transfer time limit	45 minutes for transfers (i) Between rail station and bus service (ii) Between different bus services	
	<u>No</u> transfer allowed between different rail stations	15 minutes for transfers between different rail stations <i>(New)</i>
Other conditions	Current bus service must not be the same as the preceding bus service	
	No exit and re-entry at the same station	