

**PCPD’s Submission in response to the**  
**Public Engagement for Electronic Road Pricing Pilot Scheme**  
**in Central and its Adjacent Areas**

This Submission is made by the Privacy Commissioner for Personal Data, Hong Kong (“**PCPD**”) in response to the public engagement exercise carried out by the Transport and Housing Bureau in relation to the proposed Electronic Road Pricing Pilot Scheme in Central and its Adjacent Areas (“**the Central District ERP Pilot Scheme**”). As the regulator to protect individuals’ privacy in relation to personal data under the Personal Data (Privacy) Ordinance, Cap. 486 (“**the Ordinance**”), the PCPD would like to provide comments on some of the issues raised from the perspective of personal data privacy protection.

**General comments**

2. The PCPD generally supports any proposal that aims at tackling road traffic congestion in Central and its adjacent areas. The PCPD also advocates the importance of embracing personal data privacy protection throughout the planning, implementation and reviewing of any scheme or infrastructure that may have an impact upon personal data privacy.

3. The PCPD acknowledges the free flow of information being one of the underpinning core attributes to the success of Hong Kong. The PCPD also

reiterates that there are circumstances under the Ordinance whereby personal data may be exempt from all or some of the provisions in the best interest of the public. The purpose of the Ordinance is to protect the privacy of individuals in relation to personal data. In other words, the Ordinance will apply if the operation of the Central District ERP Pilot Scheme involves the collection, use or retention of personal data<sup>1</sup>.

4. All the technologies mentioned in the Public Engagement Document for the Central District ERP Pilot Scheme involve revealing the location of vehicles entering into Central or its adjacent areas in some ways (e.g. capturing the number plate of a vehicle in certain circumstances<sup>2</sup>). While it may not be practicable to ascertain the identity of the registered owner directly from the captured data alone (i.e. vehicle registration mark), it is possible to identify the individual owner indirectly through the Register of vehicles maintained by the Transport Department. As a result, there is a potential loss of anonymity and a risk of compiling the travel profile of an individual (i.e. the vehicle owner or the person who constantly travels with a particular vehicle, especially a celebrity), and that individual may be tracked or monitored through the collection, storage and aggregation of the relevant data. Hence, the authority that controls the collection, holding, processing or use of personal data under the Central District ERP Pilot Scheme must comply with the requirements under the Ordinance, in particular, the six Data Protection Principles (DPPs) in

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<sup>1</sup> Under the Ordinance, “*personal data*” means any data – (a) relating directly or indirectly to a living individual; (b) from which it is practicable for the identity of the individual to be directly or indirectly ascertained; and (c) in a form in which access to or processing of the data is practicable.

<sup>2</sup> The number plate of a vehicle will be captured – (1) whenever the vehicle enters the charging area during the charging period under the Automatic Number Plate Recognition technology; or (2) when payment cannot be made successfully under the Dedicated Short-range Radio Communication technology.

Schedule 1<sup>3</sup>.

### **Specific comments on the Public Engagement Document**

5. In the ensuing paragraphs, the PCPD provides further comments on specific questions as raised in the Public Engagement Document which may have implications on personal data privacy, including the charging mechanism (Question 3), technology (Question 9), other privacy concerns (Question 10) and the indicators to evaluate the effectiveness of the Central District ERP Pilot Scheme (Question 11). For those questions which concern the other implementation details of the Central District ERP Pilot Scheme, such as the charging area, charging period, charging level and exemption, etc., the PCPD would make no submission thereon.

#### ***Q3 Do you prefer an area-based or cordon-based charging mechanism for the Central District ERP Pilot Scheme? Why?***

6. Two common types of charging mechanism, namely, *area-based* and *cordon-based* approaches, are raised in the Public Engagement Document to solicit public views.

7. Under an *area-based* charging mechanism, motorists are only required to pay once per day and could enter and re-enter the charging area without

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<sup>3</sup> The six DPPs form the cornerstone of the Ordinance and govern respectively data collection, data accuracy and retention, use of data, data security, transparency of data policy and data access and correction rights.

having to make further payment on the same day<sup>4</sup>. Under a *cordon-based* charging mechanism, a vehicle is charged every time it crosses a charging point of the charging area during the charging period<sup>5</sup>. It allows the charging level to vary based on time, location, and travel direction. It is raised that the charging of daily rate (i.e. the area-based charging mechanism) may not be equitable to all motorists as it disregards the travel distance or duration within the charging area and thus not effective in tackling traffic congestion problem. Some argue that *cordon-based* charging mechanism is a more equitable approach in line with the “*user pays*” principle.

8. Given that there is no strait jacket in solving congestion problems, the choice is a decision after taking into account different factors when assessing the two approaches so as to achieve the ultimate goal of the Central District ERP Pilot Scheme. Effectiveness, fairness and privacy-friendliness are the relevant factors in considering which of these approaches is more preferable. In this regard, the PCPD notes that the use of satellite technology for *area-based* approach in tracking vehicles will enable the aggregation, matching and further processing of data in the public domain (i.e. owners’ details in the Register of Vehicles), thus creating travel profiles of individuals and making surveillance possible. Besides, there are risks of “*function creep*”, where data collected for one purpose is gradually used (often with advancement of technology and application of further techniques) for new purposes beyond what was originally envisaged or legitimated. However, the use of satellite technology in either tracking the “*distance*” or “*time*” of the vehicles staying

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<sup>4</sup> See paragraphs 3.2.3 and 4.2.5 to 4.2.9 of the Public Engagement Document.

<sup>5</sup> See paragraphs 3.2.2 and 4.2.10 to 4.2.12 of the Public Engagement Document

in the charging area may only help solve some but not all congestion issues. As pointed out by the Administration in the Public Engagement Document, the satellite technology is not yet mature. The PCPD urges the Administration to adopt less privacy-intrusive options when designing the Central District ERP Pilot Scheme and to strike a proper balance in serving public interest.

***Q9 Dedicated Short-range Radio Communication (DSRC) technology requires the installation of an In-vehicle unit (IVU) in each vehicle entering the charging area for ERP payment, while Automatic Number Plate Recognition (ANPR) technology captures the licence number plate of a vehicle every time when it enters / leaves / circulates in the charging area. On the whole, would you say that ANPR or DSRC is a more preferable technology for the Central District ERP Pilot Scheme?***

9. Both the ANPR and DSCR technology will involve installation of roadside hardware for detection of vehicles entering, exiting and being used within the charging area as well as for enforcement purpose (i.e. for recovery of payment). From personal data protection point of view, the PCPD urges the Administration to adopt technology that is more privacy-friendly for the Central District ERP Pilot Scheme.

10. The ANPR technology captures images of the number plates of all vehicles in the charging area during the charging period. As explained in paragraphs 4 and 8 above, the vehicle registration marks, when combined with other identifiable information of the individual owners obtained from the

Register of Vehicles maintained by the Transport Department, may enable the identities of the vehicle owners to be ascertained and thus building up their travel profiles. The building of travel profile will render an individual more vulnerable to privacy risks.

11. The PCPD is further concerned that ANPR technology may be used as policing tools by law enforcement agencies, as demonstrated in the London Congestion Charging Scheme. The London Scheme was introduced in central London in 2003 using ANPR technology. The ANPR cameras were originally installed for implementing the London Scheme but the data was subsequently shared with the Metropolitan Police for national intelligence purposes<sup>6</sup>. The Metropolitan Police is able to track all vehicles entering central London by having real-time access to all ANPR cameras. While such data sharing arrangement is considered by the UK Information Commissioner's Office as arguably legitimate and beneficial to the national security, it goes beyond the original purpose for which the ANPR cameras were installed. In Hong Kong, the crime exemption under section 58 of the Ordinance will only apply on a case by case basis. From the perspective of data privacy protection, the PCPD recommends that the Administration should be mindful in considering whether massive collection of data is justified in the first place.

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<sup>6</sup> See the "*Information Commissioner's report to Parliament on the state of surveillance*" published in November 2010, available at: <https://ico.org.uk/media/about-the-ico/documents/1042386/surveillance-report-for-home-select-committee.pdf>.

12. It is pointed out in the Public Engagement Document that the DSCR technology will provide a greater degree of privacy<sup>7</sup>. An ERP scheme using DSRC technology requires the installation of an IVU in a vehicle to enable instantaneous payment when passing through an ERP gantry. The number plate of the vehicle will be captured only if payment cannot be made successfully. The ERP payment is made via a pre-payment card, a credit card or other kinds of contactless card inserted into the IVU. In the circumstances, it appears that personal data privacy would be better protected if the ERP payment is to be made via a pre-paid anonymous card (similar to a standard Octopus card).

13. In any event, the PCPD acknowledges that the crucial point is to allow an individual to freely choose the payment method under the DSCR technology, even if such method (such as credit card) may result in a loss of anonymity. That said, the operator of the Central District ERP Pilot Scheme should ensure that an individual is fully aware of the privacy risks associated with each payment method so that he can make an informed choice. It appears that the technical details on the operation of the payment system is not made clear in the Public Engagement Document, e.g. whether and if so what data will be stored in the IVU device and what data will be collected by the operator of the Central District ERP Pilot Scheme in securing payment. The PCPD would invite the Administration to further explain the operational details for further assessment of privacy risks, if any.

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<sup>7</sup> See paragraph 3.2.10 of the Public Engagement Document.

***Q10 Do you have any concern over the protection of privacy in the Central District ERP Pilot Scheme? What are your concern(s) and how do you think it / they could be addressed?***

*Harness privacy risks through Privacy Impact Assessment*

14. As the proposal is still in its infancy, the PCPD suggests that a Privacy Impact Assessment should be conducted to identify potential risks involved in the Central District ERP Pilot Scheme which affects personal data privacy of the general public. Although not a statutory requirement, Privacy Impact Assessment is a valuable tool to systematically evaluate the privacy risks associated with a proposal with an objective of avoiding or minimizing adverse impacts<sup>8</sup>. Furthermore, the PCPD recommends the Administration should adopt a *Privacy-by-design* approach in harnessing the privacy risks from development to implementation of the relevant system or scheme.

15. In view of the fact that the Administration will engage a consultant to conduct feasibility study to assess different options in the next round of public consultation, the PCPD expects more information will be provided on the technical operation of the different technologies and how the privacy risks will be minimized.

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<sup>8</sup> For further details, see the “*Information leaflet on Privacy Impact Assessment*” issued by the PCPD available at:  
[https://www.pcpd.org.hk/english/resources\\_centre/publications/files/InfoLeaflet\\_PIA\\_ENG\\_web.pdf](https://www.pcpd.org.hk/english/resources_centre/publications/files/InfoLeaflet_PIA_ENG_web.pdf)



### *Other Privacy Concerns*

16. Apart from conducting a Privacy Impact Assessment as recommended, the PCPD takes the view that, irrespective of the kinds of technology or charging mechanism to be adopted in the Central District ERP Pilot Scheme, the operator of the Central District ERP Pilot Scheme must comply with the Ordinance in the collection and subsequent handling of personal data. The relevant DPPs and requirements under the Ordinance are highlighted below.

#### *(i) No Excessive Collection of data*

17. Personal data collected should be adequate, necessary but not excessive<sup>9</sup> for the purpose of the Central District ERP Pilot Scheme. The best way to protect personal data privacy is to ensure personal data shall be collected only when it is necessary and less privacy-intrusive alternative is not available.

#### *(ii) Notification before Collection of data*

18. If collection of personal data is inevitable in the implementation of the Central District ERP Pilot Scheme, the Administration should ensure that on or before collection of personal data, the individual is notified of the purposes of collection and the classes of persons to whom his personal data may be

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<sup>9</sup> DPP 1(1)

transferred<sup>10</sup>. This may be done by way of a Personal Information Collection Statement provided to the vehicle owner at the time of application for registration and licensing of a vehicle, or before the installation of an IVU. The Administration may also consider specifying the requisite information to be notified to the applicant in the future legislation for the Central District ERP Pilot Scheme.

*(iii) Retention of Data*

19. Personal data collected under the Central District ERP Pilot Scheme should not be kept for a period longer than is necessary to fulfil the original collection purposes<sup>11</sup>, say processing payment record and taking follow-up action for outstanding payment. Practical steps must be taken to ensure that data which is not required to fulfil the original purpose(s) shall be erased<sup>12</sup>. It is advisable that the Administration would formulate a data retention policy and ensure strict compliance thereof.

*(iv) Use of Data*

20. Personal data collected must only be used for the purpose for which the data is collected or for a directly related purpose, unless voluntary and explicit consent is obtained from the individual (i.e. data use principle)<sup>13</sup>. Further, any subsequent transfer or disclosure of the data to any third party,

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<sup>10</sup> DPP1(3)(b)

<sup>11</sup> DPP2(2)

<sup>12</sup> Section 26 of the Ordinance

<sup>13</sup> DPP3(1) and (4)

including other government departments and law enforcement agencies, must be consistent with the original collection purpose or a directly related purpose, unless with consent of the individual or any exemption provisions under the Ordinance apply<sup>14</sup>. Before invoking any exemption provision under the Ordinance to disclose personal data collected under the Central District ERP Pilot Scheme to government departments or law enforcement agencies, it is pertinent that reasonable enquiries should be made with the relevant department or authority to ascertain if non-disclosure of the data would be likely to prejudice the exempted purposes. Such enquiries should generally cover the reasons why the individual's consent is not obtained, the purpose for which the requested data is to be used and why such purpose is likely to be prejudiced by the non-disclosure of the data pursuant to the data use principle, etc.

*(v) Security of Data*

21. All reasonably practicable steps must be taken to ensure that personal data is protected against unauthorised or accidental access, processing, erasure, loss or use<sup>15</sup>. In view of the privacy risks associated with the misuse of personal data, it is recommended that the Administration should develop managerial and operational policies, guidelines and procedures to ensure confidentiality and integrity of the data and accountability of those who handle

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<sup>14</sup> For example, under section 57(2), personal data is exempted from the provisions of DPP3 if the use of the data is for the purposes of safeguarding security, defence or international relations in respect of Hong Kong. Also, personal data to be used for the purpose of prevention or detection of crime, etc. may be exempted under section 58(2). It is to be noted that invoking an exemption under section 57(2) or 58(2) is subject to a prejudice test, i.e. whether the application of DPP3 in relation to the intended use of the data would be likely to prejudice any of the purposes specified in the exemption provisions.

<sup>15</sup> DPP4(1)

it.

*(vi) Outsourcing of Personal Data*

22. If a contractor is engaged to handle personal data, the Administration should also adopt contractual or other appropriate means to prevent any personal data transferred to the contractor from being kept longer than is necessary for processing the data<sup>16</sup>; and to prevent unauthorised or accidental access, processing, erasure, loss or use of the data transferred<sup>17</sup>. In this connection, the PCPD has issued the “*Information Leaflet on Outsourcing the Processing of Personal Data to Data Processor*” to provide guidance on a data user’s obligations<sup>18</sup>.

23. If personal data will be transferred to a place outside Hong Kong, due consideration must be given to section 33 of the Ordinance (on prohibition against cross-border data transfer except under prescribed conditions). Although section 33 of the Ordinance is not yet effective, it is prudent to follow the relevant guidance issued by the PCPD<sup>19</sup>. The purpose of section 33 is to ensure that the transferred personal data will be afforded with an equivalent level of protection as the Ordinance. It is to be noted that storing personal data in the cloud may also constitute a transfer outside Hong Kong if the cloud server is accessible outside Hong Kong. The operator of the Central District

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<sup>16</sup> DPP2(3)

<sup>17</sup> DPP4(2)

<sup>18</sup> The Information Leaflet is available at:

[https://www.pcpd.org.hk/english/resources\\_centre/publications/files/dataprocessors\\_e.pdf](https://www.pcpd.org.hk/english/resources_centre/publications/files/dataprocessors_e.pdf)

<sup>19</sup> See PCPD’s “*Guidance on Personal Data Protection in Cross-border Data Transfer*”, available at:

[https://www.pcpd.org.hk/english/resources\\_centre/publications/files/GN\\_crossborder\\_e.pdf](https://www.pcpd.org.hk/english/resources_centre/publications/files/GN_crossborder_e.pdf)

ERP Pilot Scheme should be mindful of its obligations under section 33 of the Ordinance if cloud service provider would be engaged to store and/or process personal data collected under the Central District ERP Pilot Scheme.

***Q11 What indicators do you think we should use to evaluate the effectiveness of the Central District ERP Pilot Scheme?***

24. The PCPD submits that the effectiveness of the Central District ERP Pilot Scheme should be evaluated by both quantitative and qualitative indicators. Generally, an effective solution to tackle traffic congestion problem which is widely accepted by the society should not compromise data privacy rights. In considering an option for the Central District ERP Pilot Scheme, the Administration is invited to strike a proper balance between the effectiveness of that option in improving traffic condition (to be measured by quantitative indicator such as traffic speed) and its implications on personal data privacy (to be assessed by qualitative indicators, say the overall impression of the public on whether their personal data privacy is respected under the Central District ERP Pilot Scheme).

### **Concluding Remarks**

25. The Ordinance is technology-neutral. The PCPD urges the Administration to examine and incorporate personal data privacy protection measures when taking forward and designing the Central District ERP Pilot Scheme. In this regard, the PCPD stands ready to provide further views on

the privacy-related issues as the Central District ERP Pilot Scheme develops.

*Privacy Commissioner for Personal Data, Hong Kong*

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